

```

1 CCCAGGGCGC CGTAGGCGGT GCATCCCGTT CGCGCCTGGG GCTGTGGTCT
51 TCCCCGCGCCT GAGGCGGCGG CGGCAGGAGC TGAGGGGAGT TGTAGGGAAC
101 TGAGGGGAGC TGCTGTGTCC CCCGCTCCTT CCTCCCCATT TCCGCGCTCC
151 CGGGACCATG TCCGCGCTGG CGGGTGAAGA TGTCTGGAGG TGTCCAGGCT
201 GTGGGGACCA CATTGCTCCA AGCCAGATAT GGTACAGGAC TGTCAACGAA
251 ACCTGGCACG GCTCTTGCTT CCGGTGAAAG TGATGCGCAG CCTGGACCAC
301 CCCAATGTGC TCAAGTTCAT TGGTGTGCTG TACAAGGATA AGAAGCTGAA
351 CCTGCTGACA GAGTACATTG AGGGGGGCAC ACTGAAGGAC TTTCTGCGCA
401 GTATGGATCC GTTCCCCTGG CAGCAGAAGG TCAGGTTTGC CAAAGGAATC
451 GCCTCCGGAA TGGACAAGAC TGTGGTGGTG GCAGACTTTG GGCTGTCACG
501 GCTCATAGTG GAAGAGAGGA AAAGGGCCCC CATGGAGAAG GCCACCACCA
551 AGAAACGCAC CTTGCGCAAG AACGACCGCA AGAAGCGCTA CACGGTGGTG
601 GGAAACCCCT ACTGGATGGC CCCTGAGATG CTGAACGGAA AGAGCTATGA
651 TGAGACGGTG GATATCTTCT CTTTGGGAT CGTTCTCTGT GAGATCATTG
701 GGCAGGTGTA TGCAGATCCT GACTGCCTTC CCCGAACACT GGACTTTGGC
751 CTCAACGTGA AGCTTTTCTG GGAGAAGTTT GTTCCACAG ATTGTCCCCC
801 GGCCTTCTTC CCGCTGGCCG CCATCTGCTG CAGACTGGAG CCTGAGAGCA
851 GACCAGCATT CTCGAAATTG GAGGACTCCT TTGAGGCCCT CTCCCTGTAC
901 CTGGGGGAGC TGGGCATCCC GCTGCCTGCA GAGCTGGAGG AGTTGGACCA
951 CAGCTGTAGC ATGCAGTACG GCCTGACCCG GGACTCACCT CCCTAGCCCT
1001 GGCCAGGCCC CCTGCAGGGG GGTGTTCTAC AGCCAGCATT GCCCTCTGT
1051 GCCCATTCC TGCTGTGAGC AGGGCCGTCC GGGCTTCCTG TGGATTGGCG
1101 GAATGTTTAG AAGCAGAACA AACCATTCTT ATTACCTCCC CAGGAGGCAA
1151 GTGGGCGCAG CACCAGGGAA ATGTATCTCC ACAGGTTCTG GGGCTAGTT
1201 ACTGTCTGTA AATCCAATAC TTGCCTGAAA GCTGTGAAGA AGAAAAAAAC
1251 CCCTGGCCTT TGGGCCAGGA GGAATCTGTT ACTCGAATCC ACCCAGGAAC
1301 TCCCTGGCAG TGGATTGTGG GAGGCTCTTG CTTACACTAA TCAGCGTGAC
1351 CTGGACCTGC TGGGCAGGAT CCCAGGTGA ACCTGCCTGT GAACTCTGAA
1401 GTCAGTAGTC CAGCTGGGTG CAGGAGGACT TCAAGTGTGT GGACGAAAGA
1451 AAGACTGATG GCTCAAAGGG TGTGAAAAAG TCAGTGATGC TCCCCCTTC
1501 TACTCCAGAT CCTGTCTTTC CTGGAGCAAG GTTGAGGGAG TAGGTTTTGA
1551 AGATGCCCTT AATATGTGGT GGAACAGGCC AGGAGTTAGA GAAAGGGCTG
1601 GCTTCTGTTT ACCTGCTCAC TGGCTCTAGC CAGCCCAGGG ACCACATCAA
1651 TGTGAGAGGA AGCCTCCACC TCATGTTTTT AAACCTAATA CTGGAGACTG
1701 GCTGAGAACT TACGGACAAC ATCCTTTCTG TCTGAAACAA ACAGTCACAA
1751 GCACAGGAAG AGGCTGGGGG ACTAGAAAGA GGCCCTGCCC TCTAGAAAGC
1801 TCAGATCTTG GCTTCTGTTA CTCATACTCG GGTGGGCTCC TTAGTCAGAT
1851 GCCTAAAAACA TTTTGCCTAA AGCTCGATGG GTTCTGGAGG ACAGTGTGGC
1901 TTGTCACAGG CCTAGAGTCT GAGGGAGGGG AGTGGGAGTC TCAGCAATCT
1951 CTTGGTCTTG GCTTCATGGC AACCACTGCT CACCCTTCAA CATGCCTGGT
2001 TTAGGCAGCA GCTTGGGCTG GGAAGAGGTG GTGGCAGAGT CTCAAAGCTG
2051 AGATGCTGAG AGAGATAGCT CCCTGAGCTG GGCCATCTGA CTTCTACCTC
2101 CCATGTTTGC TCTCCCACT CATTAGCTCC TGGGCAGCAT CCTCCTGAGC
2151 CACATGTGCA GGTACTGGAA AACCTCCATC TTGGCTCCA GAGCTCTAGG
2201 AACTCTTCAT CACAAC TAGA TTTGCCTCTT CTAAGTGTCT ATGAGCTTGC
2251 ACCATATTTA ATAAATTGGG AATGGGTTTG GGGTATTAAA AAAAAAAAAA
2301 AAAAAAAAAA AAAAAAAAAA (SEQ ID NO:1)

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FEATURES:

5'UTR: 1-228
Start Codon: 229
Stop Codon: 994
3'UTR: 997

FIGURE 1A

Homologous proteins:

Top 10 BLAST Hits

	Score	E
CRA 1000682328847 /altid=gi 8051618 /def=ref NP_057952.1 LIM d...	485	e-136
CRA 18000005015874 /altid=gi 5031869 /def=ref NP_005560.1 LIM ...	485	e-136
CRA 88000001156379 /altid=gi 7434382 /def=pir JC5814 LIM motif...	469	e-131
CRA 88000001156378 /altid=gi 7434381 /def=pir JC5813 LIM motif...	469	e-131
CRA 18000005154371 /altid=gi 7428032 /def=pir JE0240 LIM kinas...	469	e-131
CRA 18000005126937 /altid=gi 6754550 /def=ref NP_034848.1 LIM ...	469	e-131
CRA 18000005127186 /altid=gi 2804562 /def=dbj BAA24491.1 (AB00...	469	e-131
CRA 18000005127185 /altid=gi 2804553 /def=dbj BAA24489.1 (AB00...	469	e-131
CRA 18000005004416 /altid=gi 2143830 /def=pir I78847 LIM motif...	468	e-131
CRA 18000005004415 /altid=gi 1708825 /def=sp P53670 LIK2_RAT LI...	468	e-131

BLAST dbEST hits:

	Score	E
gi 10950740 /dataset=dbest /taxon=96...	1049	0.0
gi 10156485 /dataset=dbest /taxon=96...	975	0.0
gi 5421647 /dataset=dbest /taxon=9606 ...	952	0.0
gi 10895718 /dataset=dbest /taxon=96...	757	0.0
gi 13043102 /dataset=dbest /taxon=960...	714	0.0
gi 519615 /dataset=dbest /taxon=9606 /...	531	e-149
gi 11002869 /dataset=dbest /taxon=96...	511	e-143

EXPRESSION INFORMATION FOR MODULATORY USE:

library source:

From BLAST dbEST hits:

gi|10950740 teratocarcinoma
gi|10156485 ovary
gi|5421647 testis
gi|10895718 nervous_normal
gi|13043102 bladder
gi|519615 infant brain
gi|11002869 thyroid gland

From tissue screening panels:

Fetal whole brain

FIGURE 1B

1 MVQDCQRNLA RLLLPVKVMR SLDHPNVLKF IGVLYKDKKL NLLTEYIEGG
 51 TLKDFLRSM D PFPWQQKVR F AKGIASGMDK TVVADFGLS RLIVEERKRA
 101 PMEKATTKKR TLRKNDRKKR YTVVGNPYWM APEMLNGKSY DETVDIFSFG
 151 IVLCEIIGQV YADPDCLPRT LDFGLNMVLF WEKFPVPTDCP PAFFPLAAIC
 201 CRLEPESRPA FSKLEDSFEA LSLYLGE LGI PLPAELEELD HTVSMQYGLT
 251 RDSPP (SEQ ID NO:2)

FEATURES:

Functional domains and key regions:

[1] PDOC00004 PS00004 CAMP_PHOSPHO_SITE

CAMP- and cGMP-dependent protein kinase phosphorylation site

Number of matches: 2

1 108-111 KKRT
 2 119-122 KRYT

[2] PDOC00005 PS00005 PKC_PHOSPHO_SITE

Protein kinase C phosphorylation site

Number of matches: 4

1 51-53 TLK
 2 106-108 TTK
 3 107-109 TTK
 4 111-113 TLR

[3] PDOC00006 PS00006 CK2_PHOSPHO_SITE

Casein kinase II phosphorylation site

Number of matches: 4

1 51-54 TLKD
 2 76-79 SGMD
 3 139-142 SYDE
 4 212-215 SKLE

[4] PDOC00008 PS00008 MYRISTYL

N-myristoylation site

Number of matches: 4

1 73-78 GIASGM
 2 77-82 GMDKTV
 3 150-155 GIVLCE
 4 158-163 GQVYAD

Membrane spanning structure and domains:

Helix	Begin	End	Score	Certainty
1	142	162	0.872	Putative
2	184	204	0.652	Putative

FIGURE 2A

BLAST Alignment to Top Hit:

```
>CRA|1000682328847 /altid=gi|8051618 /def=ref|NP_057952.1| LIM
domain kinase 2 isoform 2b [Homo sapiens] /org=Homo
sapiens /taxon=9606 /dataset=nraa /length=617
Length = 617
```

Score = 485 bits (1235), Expect = e-136
Identities = 241/265 (90%), Positives = 241/265 (90%), Gaps = 22/265 (8%)

```
Query: 13 LLPVKVMRSLDHPNVLKFIGVLYKDKKLNLLTEYIEGGTLKDFLRSMDFPWPQQKVRFAK 72
L VKVMRSLDHPNVLKFIGVLYKDKKLNLLTEYIEGGTLKDFLRSMDFPWPQQKVRFAK
Sbjct: 353 LTEVKVMRSLDHPNVLKFIGVLYKDKKLNLLTEYIEGGTLKDFLRSMDFPWPQQKVRFAK 412
```

```
Query: 73 GIASGM-----DKTVVWADFGLSRLIVEERKRAPMEKATTKKR 110
GIASGM DKTVVWADFGLSRLIVEERKRAPMEKATTKKR
Sbjct: 413 GIASGMAYLHSMCIHRDLNSHNCLIKDKTVVWADFGLSRLIVEERKRAPMEKATTKKR 472
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```
Query: 111 TLRKNDRKKRYTVGNPYWMAPEMLNGKSYDETVDIFSFGIVLCEIIGQVYADPDCLPRT 170
TLRKNDRKKRYTVGNPYWMAPEMLNGKSYDETVDIFSFGIVLCEIIGQVYADPDCLPRT
Sbjct: 473 TLRKNDRKKRYTVGNPYWMAPEMLNGKSYDETVDIFSFGIVLCEIIGQVYADPDCLPRT 532
```

```
Query: 171 LDFGLNVKLFWEKFVPTDCPPAFFPLAAICCRLEPESRPAFSKLEDSFEALSPLYLGELGI 230
LDFGLNVKLFWEKFVPTDCPPAFFPLAAICCRLEPESRPAFSKLEDSFEALSPLYLGELGI
Sbjct: 533 LDFGLNVKLFWEKFVPTDCPPAFFPLAAICCRLEPESRPAFSKLEDSFEALSPLYLGELGI 592
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```
Query: 231 PLPAELEELDHTVSMQYGLTRDSPP 255
PLPAELEELDHTVSMQYGLTRDSPP
Sbjct: 593 PLPAELEELDHTVSMQYGLTRDSPP 617 (SEQ ID NO:4)
```

Hmmer search results (Pfam):

Model	Description	Score	E-value	N
PF00069	Eukaryotic protein kinase domain	100.1	1.1e-26	2
CE00031	CE00031 VEGFR	4.9	0.14	1
CE00204	CE00204 FIBROBLAST_GROWTH_RECEPTOR	4.7	1	1
CE00359	E00359 bone_morphogenetic_protein_receptor	1.8	7.9	1
CE00022	CE00022 MAGUK_subfamily_d	1.5	2.5	1
CE00287	CE00287 PTK_Eph_orphan_receptor	-48.4	3.8e-05	1
CE00292	CE00292 PTK_membrane_span	-61.8	2.1e-05	1
CE00291	CE00291 PTK_fgf_receptor	-113.0	0.027	1
CE00286	E00286 PTK_EGF_receptor	-125.1	0.0021	1
CE00290	CE00290 PTK_Trk_family	-151.3	6.5e-05	1
CE00288	CE00288 PTK_Insulin_receptor	-210.4	0.014	1

Parsed for domains:

Model	Domain	seq-f	seq-t	hmm-f	hmm-t	score	E-value
PF00069	1/2	16	79	41	105	52.1	2.3e-13
CE00022	1/1	124	153	187	216	1.5	2.5
PF00069	2/2	81	156	129	182	48.0	3.1e-12
CE00031	1/1	129	156	1114	1141	4.9	0.14
CE00204	1/1	129	156	705	732	4.7	1
CE00359	1/1	79	157	287	356	1.8	7.9
CE00290	1/1	9	218	1	282	-151.3	6.5e-05
CE00287	1/1	1	218	1	260	-48.4	3.8e-05
CE00291	1/1	1	218	1	285	-113.0	0.027
CE00292	1/1	1	218	1	288	-61.8	2.1e-05
CE00288	1/1	1	218	1	269	-210.4	0.014
CE00286	1/1	6	218	1	263	-125.1	0.0021

FIGURE 2B

1	TCATCCTTGC	GCAGGGGCCA	TGCTAACCTT	CTGTGTCTCA	GTCCAATTTT
51	AATGTATGTG	CTGCTGAAGC	GAGAGTACCA	GAGGTTTTTT	TGATGGCAGT
101	GACTTGAAC	TATTTAAAAG	ATAAGGAGGA	GCCAGTGAGG	GAGAGGGGTG
151	CTGTAAAGAT	AACTAAAAGT	GCACTTCTTC	TAAGAAGTAA	GATGGAATGG
201	GATCCAGAAC	AGGGGTGTCA	TACCGAGTAG	CCCAGCCTTT	GTTCCGTGGA
251	CACTGGGGAG	TCTAACCCAG	AGCTGAGATA	GCTTGCAGTG	TGGATGAGCC
301	AGCTGAGTAC	AGCAGATAGG	GAAGAAGAGC	CAAAAATCTG	AAGTAGGGCT
351	GGGGTGAAGG	ACAGGGAAGG	GCTAGAGAGA	CATTTGGAAA	GTGAAACCAG
401	GTGGATATGA	GAGGAGAGAG	TAGAGGGTCT	TGATTTCGGG	TCTTTCATGC
451	TTAACCCAAA	GCAGGTAATA	AAGTATGTGT	TGATTGAATG	TCTTTGGGTT
501	TCTCAAGACT	GGAGAAAGCA	GGGCAAGCTC	TGGAGGGTAT	GGCAATAACA
551	AGTTATCTTG	AATATCCTCA	TGGTGGAAAG	TCCTGATCCT	GTTTGAATTT
601	TGGAAATAGA	AATCATTGAG	AGCCAAGAGA	TTGAATTGTT	GAGTAAGTGG
651	GTGGTCAGGT	TACAGACTTA	ATTTTGGGTT	AAAAAGTAAA	AACAAGAAAC
701	AAGGTGTGGC	TCTAAAATAA	TGAGATGTGC	TGGGGGTGGG	GCATGGCAGC
751	TCATAAACTG	ACCCTGAAAG	CTCTTACATG	TAAGAGTTCC	AAAAATATTT
801	CCAAAACCTG	GAAGATTCAT	TTGGATGTTT	GTGTTCAATTA	AAATCTCTCA
851	CTAATTCATT	GTCTTGTTCA	CTGTCCGTAA	CCCAACCTGG	GATTGGTTTG
901	AGTGAGTCTC	TCAGACTTTT	TGCCCTGGAG	TTTGTGAGAG	AGATGGCATA
951	CTCTGTGACC	ACTGTACCC	TAAAACCAAA	AAGGCCCTC	TTGACAAGGA
1001	GTCTGAGGAT	TTTAGACCCA	GGAAGGAATGA	GTGATGGGCA	TATATATATC
1051	CTATTACTGA	GGCATGAGAA	GAGTGAATG	GGTGGGTTGA	GGTGGTGTTC
1101	TAAGGCCTCT	TGCCAGCTTG	TTTAACTCTT	CTCTGGGGAA	CGAGGGGGAC
1151	AACTGTGTAC	ATTGGCTGCT	CCAGAATGAT	GTTGAGCAAT	CTTGAAGTGC
1201	CAGGAGCTGT	GCTTTGTCTA	TTTATGGCCC	CTGTGCCTGT	GAAACAGGGT
1251	TCGGTGACTG	TACTGTGCC	TGTGGCAGTC	TGTAGTTACC	CAGAGAGAAC
1301	AAAGCTGCAT	ACACAGAGCG	CACAAGGGAG	TCTTGTAAAC	ACCTTGTCTT
1351	GCTTTCTAGG	GCTGAGTCAG	GTACCACAGC	TTGATCTCAG	CTGTCTCTTT
1401	TATTTCAAGA	AGTTGACATC	TGAGCCATAC	CAGGAGTATT	GTATTTTGTG
1451	TGAGGCCTCT	CTTTTGGAG	GAACATGGAC	CGACTCTGTG	CTTTTGTCTA
1501	TGCTGGTCTC	TGAGCTCACA	CAACCTTCA	CCCTCCTTTC	TCAGCCAGTG
1551	ATAGTAAAGT	CTTCCCTATC	TTGCAAGGCT	CAGCTCAAGT	GTCAGCTTCC
1601	TCTACAAAGA	CTTTCCTGGT	TCCCCTCATT	GGAGTGAACA	AGAGTTGACA
1651	TGGTAGAATG	GAAAGAGCAG	AAGCTTTAGA	ATGAGCCAGA	CCTGAGTATG
1701	AATGCTAGAT	CCACCACTTA	GCTAGTCAAC	CCTGCCCCCT	GCCTCAAGTT
1751	TTAATTTTCC	TATCCATTAA	GTGAATATAA	TAATACCTGT	GTCACAGGAT
1801	TATTTTGAGA	ATTAAATGAG	ATTAGGTCTA	TGAAAGCACC	TAGCAGAGTT
1851	CTTGGCATAT	AGGAGGCATT	CATTAAATAT	TTGTTCTTCC	CCTTTTATAC
1901	CCATTACTTT	TCTTTTCTG	AACTAAAATA	ATACTTGGTT	CTATCTCTGA
1951	AATAACATCC	AAGTGAAAAA	TCAACAACAT	GAAAGAGCAG	TTCTTTTCCA
2001	GTGGATTTGC	TTCTTAAGGA	GCAGAGATTA	TGTAATCTAA	CAGCCTCCAA
2051	CATACAAAGA	GCTTTGTATC	TAGAACAGGG	GTCCCCAGCC	CCTGGACCGC
2101	CAACTGGTAC	GGGTCTGTAG	CCTGTTAGGA	ACCAGGCTGC	ACAGCAGGAG
2151	GTGAGCGGCG	GGCCAGTGAG	CATTGCTGCC	TGAGCTCTGC	CTCCTGTGAG
2201	ATCAGTGGTG	GCATTAGATT	CTCATAGGAG	TGTGAACCCT	ATTGTGAACT
2251	GCACATGCAA	GGGATCTGGG	TTGCATGCTC	CTTATGAGAA	TCTCACTAAT
2301	GGCTGATGAT	CTGAGTTGGA	ACAGTTTGAT	ACCAAAACCA	TCCCCCGGCC
2351	CCCCAACCCC	CAGCCTAGGG	TCCGTGGAAA	AATTGGCCCC	TGGTGCCAAA
2401	AAGGTTGAGG	ACTGCTGATC	TAGAGGACCA	ATTTATTCAA	TGTTGGTTGA
2451	GTAAATGAGC	TCTTGGATTA	GGTGATGGAA	AAATCTGAAA	AAACAGGGCT
2501	TTTGAGGAAT	AGGAAAAGGC	AGTAACATGT	TTAACCCAGA	GAGAAGTTTC
2551	TGGCTGTTGG	CTGGGAATAG	TCATAGGAAG	GGCTGACACT	GAAAAGAAGG
2601	AGATTGTGTT	CGTTTCTTCT	TCTCAGAGCT	ATAAGCAAAG	GCTGAAAGTT
2651	CTAGAAAAAG	GCAAGTTTTG	TTTCACTAGA	AAAAAGGATA	ATCAGAACCA
2701	TTTTTAGAAA	ATGGAATGAG	ACTACTTTTG	AGGCCATGAG	TTCTTTGTCC
2751	CTGGAGAGAT	GAGCAGAGGT	TGGACAAAGT	CTTACCAGAG	ATCTTTGTGA
2801	GGCAGAAACT	GTGCATCTAG	CAGAGCATTG	GCCTAACCCCT	TTCAAATGAG
2851	ATGCTGTTAA	CTCAGTCTTA	TTCTACATGG	TAGGAATCCT	GTCCCTTTGC
2901	CTCCTGCTAC	TTTGGGCCTC	TCAACCTCTT	GGTTTTGTGT	GCAGGTGAAG

FIGURE 3-1

2951	ATGTCTGGAG	GTGTCCAGGC	TGTGGGGACC	ACATTGCTCC	AAGCCAGATA
3001	TGGTACAGGA	CTGTCAACGA	AACCTGGCAC	GGCTCTTGCT	TCCGGTAGGT
3051	GGGCCTATCC	TCCCATCTTT	ACCAGTGTA	TATGGGCCAA	GCACTATTTT
3101	ATGTTCTGAT	GGAAAACACA	GAAACAAGCT	TCTGAGTTGA	GAATTTCAAT
3151	CTTAGGGTGG	GGAAAGGAAT	GTACCAAGGA	AGAGCTCATG	ACCAAACCTC
3201	AAGTGTGGCC	CCCCTGAACC	CAGGTAAAT	TGGAAGAGCC	ATAAATGGGC
3251	CAGCTGGAGG	CAGGGTGGGG	GGATGAGAGG	AGCCCTTTCC	AGGGTTGTCC
3301	CATATCCCTC	ACTTTATGGG	TGAGGAACT	GAGGCCCAGG	AAGAGTGACT
3351	TTCCTGTGGC	TGCACTACAG	ATTATGCAGG	TACTTCAAGA	GTGTGTTGTA
3401	TTCTTATTTT	ATTTTATTTT	ATTTTATTTT	ATTTTATTTT	ATTTTATGAG
3451	AGGGATTCTT	GCTGTTGCCC	AGGCTGGAGT	GCAGTGGTGC	AATCTCGGCT
3501	CACTGCAATC	TCTGCCTGCT	GGGTTCAGT	GATTTTTCTG	CCTTAGCTTC
3551	CTGAGTAGCT	GAGATGACAG	GCACCTGCCA	CCATGCGCAG	CTAATTTTTG
3601	TATTTTAGTG	GAGACGGGGG	TTTCAACATG	TTGGTCAGGC	TGGTCTTGAA
3651	CTCCTGACCT	CAAATGATGC	ACCCACCTCG	ACCTCCCAAA	GTGCTGGAAT
3701	TACAGGCGTG	AACCACTGTG	CCCAGCCAAG	AGTTGTTTTT	AGTGTGGTTG
3751	GCAGAGCCAG	CTCTTCCTTC	ACCACAGGAT	GCCTCCCTAG	GTTCTACTT
3801	TTTGTACTA	GCTTTTATTA	TAGCTATATT	ATTATTATTA	TTATTATTAT
3851	TATTATTATT	ATTATTGAGA	CAGAGTCTCG	CTCTGTCGCC	CAGGCTGGTG
3901	TACAGTGGTG	CGATCCCAGG	CTCACTGCAA	CCTCTGCCCT	CCGAGTTCAA
3951	GCAGTTCCTC	TGCCTCAGCC	CCCCGAGTAG	GTGGGACTAC	AGGCGCCTGC
4001	CACCACACCC	GGCTAATTTT	TGTATTTTTA	GTAGAGACGG	GGTTTCACCT
4051	TGTTGACCAG	GCTGGTCTGG	AGCTCCTGAC	CTCAGGTAAG	TGCTAGAATC
4101	ACAGGCGTGA	ACCACTGCGC	CCAGCCAAGA	GTGTGTTTTA	GTGTGGTTGG
4151	CAGAGCCAGC	TCTTCCTCAC	CACAGTTGTC	CTCCCTAGGT	TCCTACTTTT
4201	TGTTACTAGC	TTTATTATAG	CTACATTATT	ATTATTATTG	TTATTATTAT
4251	TGAGACAGAG	TCTCGCTCTG	TCGCCCAGGC	TGGTGTACAG	TGATGTGATC
4301	TTGGCTCACT	GCAACCTCTG	CCCCCCGAGT	TCAAGCAATT	CTCCTGCTTC
4351	AGCCCCCCTA	GTAGGTGGGA	CTCCAGGCAC	CTGCCACCAC	GCCCAGCTAA
4401	TTTTTGATT	TTTAGTAGAG	GCGGGGTTTC	ACCTTGTTGG	CCAGGCTGGT
4451	CTCAAATCC	TGACCTCAGG	TGATCCGCCT	GCCTCGGCCT	CCCAAAATGT
4501	TGGGATTACA	GGCATTAGCC	ACCGCGCCCT	GCCTATAGCT	ACATTATTTT
4551	TTTAGGCAGC	TGAGTTTCTT	AAAAATTATA	CAGACTTCAA	ATCAGATTTG
4601	TTCCTGCTGT	CTGAGGCTCA	GTTTCTTCAT	CTGGAAAATG	GATGGTAATA
4651	ATCTTGTTGA	GATTGAATGA	AATAATATAT	GCAGTGTATC	CAGTACATGG
4701	TAGACACCCA	GTGAATGGTT	ATTCTTCTCT	CCCATCGGAT	TGGAATTCTC
4751	AAGGGTGGGA	ACTTGTCTTT	ATATTCTTCA	CAACGTAAAA	TAGTTGAAAT
4801	TTGTTGGTGG	AAAGAAGAGC	AGTCCACTCC	AGAGGCTGGA	TGGGCATGCC
4851	TGGCCCCCAA	GGTCTGAAGT	GGTAGGGCTG	TGCCTATATC	CTGAGAATGA
4901	GATAGACTAG	GCAGGCACCT	TGTGCTGTAG	ATTCCAGCTC	CTGCACATAG
4951	CTCTTGTTGT	AAAACATCCC	TGTGCTTATA	CCAAGTAATT	GAGTTGACCT
5001	TTAAACACTT	GCCTCTTCCC	TGGGAACCAT	ATAGGGGATT	GGCCTGGAGA
5051	CGTCTGGCCT	CTGGAAGAGT	TGGAAAGCAG	CCATCATTAT	TATCCTTTCC
5101	TTTCAGCTAT	AACTCAGAGC	TCTCAAGTCT	TTTCTGTGGA	TCTTATTGCC
5151	TTGGTTCTTG	CCCCTTTTAC	TCCCAGGGAA	GTTGATTCTG	TCTTTTCTGT
5201	TCCATTTAGT	ATGACAGGAG	CAGAGAATGT	CAGAGCTGTA	AGGGACCTTA
5251	TAGTTAAAGC	CTTTGGCTGG	TCCTTTCATT	TTATAGCTGG	GACTAATAAG
5301	TAACGTCAAA	ACCCAATGAG	TTACAGATT	GGGTCTCGCC	TTGGCATGTA
5351	ACCCATATGT	TCATATTCTT	GCTGTTTTCC	TATGTGTATG	AATATTTTCT
5401	ATCCAAAATA	AGCAGGACAG	GGTAGAGCAA	GTTAATCTTT	GGAATTTCTG
5451	GATTCTCTTA	GAGCTAAAAA	ACTTCAGAAC	TAGAAGAAAC	CACCCACTAT
5501	ATGGTATAAC	CCATTATAT	CACAGATGAG	GCCTGAAACC	AAAAAGACTT
5551	GCTCAGGCCA	TGGATGACAA	GAGCTGGCCC	TAGCACTGAA	CTCTTGGGTC
5601	ATTTGTAGGT	CTAGTCAGAT	GCTAGCTTGT	TAGCTCTGTG	CGTGCGTGTG
5651	TGTGTGTGTG	TGTGTGTGTG	TGTGTGTGTG	AGAGACAGAA	AGATAACATA
5701	TGTACACAAA	TACATAAAGA	GGAAGTAGAC	ACGTTAGCAT	GGTAGATAAG
5751	AGTACAGGCA	GGCCAGGCGT	GGTGGCTCAC	GCCTGTAATC	CCAGCACTTT
5801	GGGAGGCCAA	GGCAGGTGGA	TCACCTGAGG	TCAGGAATTC	GAGACCAGCC
5851	TGACCAACAT	GGTGAAACCC	CATCTCTACT	AAATACAGAA	AAAAATTAGC

FIGURE 3-2

5901	TTGGCATGGT	GGCACATGCC	TGTAATCCCA	GCTACTTGGG	AAGCTGAAGC
5951	AGGAGAATCG	CTTGAATCCG	GGAAGCAGAA	GTTGCAGTGA	GCCGAGATTG
6001	TGCCATTACA	GTCTAGCCTG	GGCAACAAGA	GGGAAACTCC	ATCGCAAAAA
6051	AACAACCAAC	ACCAAGAGTA	CAGGCTATGG	AATGAGACTA	TGGTTTTTAA
6101	TCCTGGCTTT	GCAATTTATT	AACTAGCCTT	AAGTGACTTC	CCTGAGCTTC
6151	AGGCACCAAT	CTGTAAAATG	AGGATAAGAA	TATTACTCAT	GCCACATGGT
6201	TGTTAGGGAG	GATTAAATGT	GATAACCTAT	ATAAAGTGGC	TAGCATAGCA
6251	TCTGACATAT	AGAAAACTCT	TAATAGGGCC	GGACGTGGTG	GCTTATGCCT
6301	GTAATCCTAG	CACTCTGGGA	GGCCGAGGCA	GAAGGATCGC	TTGAGCCCAT
6351	GAGCCCAGGA	GTTTGAGACC	AGCCTGGCCA	ACATGGCAAA	ACTCCACCTC
6401	TACAAAAAAT	ACAAAAATAT	TAGCCAGGCG	TGATGGCACA	CACCTGTAGT
6451	CCCAGCTACT	TGGGAAGCTG	AGGAGCGATG	ATTACCTGAG	CCCAGGGATA
6501	TCAAGGCTGT	AGTGAGCTGT	GATCATGCCA	CTGTACTCCA	TCCAGCTGGG
6551	GGACAGAGTG	AAACCCCTGT	CTCAAAACAA	AACAAATGAA	AAAAAAAACC
6601	CTTAATAATC	AGTAACTGTC	ACTTTATATT	ATGTTGTGAG	TGTGTGTCTA
6651	TATACACCTA	TATGTATACA	TTTCTCTTAT	TACACATTCA	TTGGTGATCT
6701	GATGTGGAGC	CCCAGGGATT	AAGGGCAACT	TTGAACTACC	CTGACACAAT
6751	CAAGCCAAAT	ATCATTCCCG	TGGAGGAAGT	AGAGTATCTA	GGTTCTGTCT
6801	CCTAGTTGCA	GCTTTACCTT	GAGGACAGAG	ACTCTAATCC	AGCTGTGCTG
6851	AAGGAGCACA	TCTCCTGACT	TCTGAGCTTT	CCCCTGGTAA	ATTCAAACCTG
6901	GATGTCACGG	CGCCCTCAGA	TAGAGCCTGG	TAATTTGCCC	TGGGGAGAGT
6951	GACTGTCTTT	TGGATCTAAT	TTGACTTTTG	CCCCAGTTGG	AGGAAAAATCT
7001	TCAGGGCTAG	GAAGGATTGT	ATT.TGTCTGA	CCCCAGAGAT	AACCTGGGTT
7051	TTGAGGAACA	TGGGGCATCA	ACCTGAATGG	TCT.TGTAAGA	TCTCTCCCAC
7101	GCCAGCTTGC	CAGTGTCTCT	CTGATGAATT	TAGAGTACCT	GAGTAGTGCA
7151	GGCCTGCTGG	GAGGAGGACT	CTCCTCTGT	GCTACTCAGA	GAAATTCAAT
7201	CTTCAAGGCC	CCCTTCCAGC	CTTGCTCTTA	CCCAGCTGGG	CTACAGTTAC
7251	AATAAAGGAA	ATGACTTTTC	TTCTCCCTT	CCCCCAGTAC	CTTTGTTTTT
7301	CTAGTCACAG	GGTGGGGCTG	GATATTGAAT	GGAGAAATTG	CTGGGGTCCA
7351	TCCTAACTC	CTCCCTCAT	CTCTCCCTTA	CATTACCCCA	TTCTTCTGTC
7401	TGCAGCCACA	TCCATAATCC	TGCCTCTGTT	AGCCTTCCGA	CAGACCCTCA
7451	GGTGCCAGG	ACAACAGGAA	GCTACTTAAA	GCTGGAACCT	CAGACTGTGC
7501	AATGGAGGCC	AGTGACAAAA	CTGAAAGTAG	CTCTGTCACT	AATTGTGCTG
7551	GTGCGATTAG	GCAGCTGGCC	AGAATCTTTT	GGATCTCCTG	GACATATGGC
7601	TGACTAGTCC	TCCCAAGCCT	TCCCAACAGG	CCTCTTTTTT	TTCTTTTTTT
7651	TCTTTTCTTT	TTTTTCTTTC	TTTCTTTCTT	TCTTTTTTTT	TTTTTTTTTAG
7701	GCTAGTGAAG	TGAAATTGTG	GGAGTGGAAG	AGGAACAAAG	AAATCGGTAA
7751	CTGGTAGTGA	TCAATTACTT	GTAAACACTA	TTGTACTTGG	ACCAGCCCAG
7801	TAGGCCTTTT	TTAAAACTCT	GAGTTACCTC	TCTTTCCTTT	CCTTGAGCAG
7851	TGCCATTAAT	TCTGTATCTG	GGGCAATCCT	TTCTGATGTT	CTCTGGACCT
7901	GGCTCTCTCT	CCTTAGGAGA	GGCCAGGAGA	GTAGCCAGAG	AGCATGTCAT
7951	TTGTAGCTGA	GGTTAAAGTG	TGGAGCTATC	AATGGTGACC	TGGCCTCTTG
8001	GCATGTTAGC	AAGCCAGAGG	ACCTTGACAA	CTTTTTTGAT	GATTGTCCGT
8051	TCACCCTGAT	CAAAGGTGTT	TGGCTTAGGA	GGAGGGAAGA	AAAGCTACCC
8101	CTATTAGTCT	TGATGGCCCC	AGCGTGCGTC	TCTATTGCTT	GACCTGGTTC
8151	CTAGCAGCAT	TATCAGAAGG	AAAATCCACC	GCTCTTAAGG	CTCCTGGGAA
8201	CTTTCAGGAC	TTCTTTCTC	AGGATTGCAA	ACATAAGACT	ATTTGAGCTT
8251	TCACCTTTGA	AAAGCGGTTA	CTAATACCTA	TACTCTGGGA	AAGGGCTAAT
8301	GCAGATAGAA	GACTGTGGTC	ACTGCATCAG	GCAACAGACC	ATTTCCGCTA
8351	AATTTAGTGA	CTCCAGGAAG	GCCAGTGAAG	AAATAACACA	CGTAGCAACC
8401	AGAGACTGTG	TTGTAATATG	TTGGCTGACA	GCAGGGTACT	TTCTGTGATG
8451	CTGAAAGCCA	CATTCAATTT	CTCTCCCTC	ATCCCCATCT	AAGCAAGCCT
8501	GGTAGAATCA	TAATTACAGT	AATAGGTACC	ACTTATTGAG	TACTCTGTGC
8551	CAGACACCTT	CCTGAGCATA	CGACATGCAT	AGCACATTTA	ATCCTTACAA
8601	TGACTTAATA	AAATGTAGTA	CTAGTCTTAC	CTACTTCGAG	AATAGGGAAA
8651	TGGAGGTTAC	TTGTTTAAAG	TCACAGAGCT	AATAGGTAGC	ATAGCTGAGA
8701	TTTGAACCTA	GGCATTCTTA	CTCCTTGCTT	GCAAGAGTCT	CTTGGCATTCT
8751	TTGAATGCAA	GCATATTTCT	TAACCTCACT	GAGGCTCAGT	TTCTCTTAT
8801	ATAATATGGG	GTAAAGAGCC	CTCACCTGCT	CTGCCACACA	CTGGTAGTGT

FIGURE 3-3

8851	CAGATAACAT	TGAAGGGTGT	TAGTTTAAAG	GCTTCATGGA	CTCTATAATG
8901	TCAACAAAAG	TGCTGTTAAC	TTTCTTCTGG	GTCTCAGGCT	CCTGATGTAG
8951	AGTCAGTGGA	GCAACCCTGC	CATCTGCTGT	TATGCTGTTG	ATGTTGCTGC
9001	CACACTTACT	AACCTAAACC	TTTGATTCTG	GCTGTGGCCT	TCTCCAGAAG
9051	GTGTTTACTC	ATTTGTCCAG	TTTATCTTTT	AGGAAACAGC	CAGCCCGTAG
9101	ATCATTAAAGG	CTGGCTATTG	GACAGGGGGC	TGGGGCCTGC	CTGACAGAGG
9151	AAGGAAGGGC	AGACATCTGG	TTCTTCCTCT	GCCCCTACAA	GAGACTCCAG
9201	CCTGACCACA	GAGTGGTACT	CCTAGGATGT	AGCAGCAGCA	TATGAGCTTG
9251	AATGTGCCTT	AATCCTGCTC	TTTACTTTGA	GAAGAGAGAA	CTAAGGACCC
9301	ACAGATGTTT	CACAGCTTCT	ATAGGAGGCA	GAGGTAGAAA	AATGGAGAGA
9351	GATGAGGCCA	GAGATAGATA	ACTGATATTA	ATTAAACGTT	GTATTAAGAA
9401	CCTCACTTAG	ATTATCTGAT	TCAATCTTCA	TAATAACCCT	GCAACCCCA
9451	CCTTTTTTTG	AGAACAGGGT	CTTGCTCTGT	TGTCCAGGCT	ACAGTGCCT
9501	GGTACAATCA	TAGTTCCTG	CAGTGTCAAC	CTCCTGAGCT	CAAGCAATCC
9551	TCCCACCTCA	GCCTTGCAAG	CAGCTTGGAC	TACAGGCGTG	CCACCACACC
9601	TTGCCATTTT	TTTTTATTTT	AAGTAGAAAC	AAGGTCTTAT	TAATACTATG
9651	TTGCCCAGGC	TGGTCTTGAA	CTCCAGCGAT	CCTCCTGCCC	CAGCCTCCCA
9701	AAGTGCTTGG	GATTACGGAA	GTAAGCCACT	GTGCCTGGEC	AGTGCAACCC
9751	CCATTTTATA	CTAAAACAGG	AAGGCCCAGA	AAGGTTTGGG	GTAACTTGTC
9801	CAGGGTCACA	CAGATGATAT	TTGAACTCAG	GTCTCCCTGG	CTCCCAAGAG
9851	AGTCTGCTTT	CCACTAGGAC	TCCCAGGAGA	AAAAAAAAAA	AAAAAACAGT
9901	AGACTTTGAG	ACAGAAAATC	TGATTTTGAGT	CTTAGTTGAG	CTAGGCTAAC
9951	TGTGTAAGTG	TGGGCAAGTT	CCTTAGCCCC	TGTGAGCCTC	AGTTTCTTAT
10001	CTGTAAAATG	TCATAAAAGA	AATCCATCTC	ATGGAGTAGT	TGTGATGATC
10051	AAGGACTCTG	AAAACATTAG	AATGGTTTAA	TGTGAAGGAT	TAGCAGCAGC
10101	ACATGGCAAC	ATTGTGCATC	TTATATTAAC	TATCCAAATA	TATCAAGCGT
10151	CATTTGCTAT	ATATAAAAGT	CATCAAATTA	GGCACTGTGG	GGGATACGGA
10201	GTTGGCATA	TAGCCTGGCC	TCTTAATTAA	TTCAATTAAT	AGCTTATTTA
10251	TTTTTGAGAT	AGGTCTTGCT	CTATTGCCCA	GGCTGGAGTG	CAGTGGCATG
10301	ATGATAGCTT	ACTATAGCCT	CAATCTCCCA	GGCTTAAACA	ATCCTCCTGA
10351	GTAGCTGGGA	CTACAGGCAC	ACACTACCAT	GCCCAGCTAA	TTTTTTTTTA
10401	ATTTTTTGTA	GAGACAGGGT	CTTGCTCTGT	TGCCCAGGET	GGTCTCAAAC
10451	TCCTGGGCTC	GAGATCCTCC	CACCTGGGCC	TCACAAAGTG	TTGGGATTAC
10501	AGGTATGAGC	CACGGCACCT	GGCCTGGTCT	CTTAACCTGT	TCCCTAAGAC
10551	AGCTGGAAT	AGAGAATGTC	ATGGAGCATT	CCTAACCATG	GGCTCCAGCC
10601	TGGCTTTCAT	TCTGTTTCTC	CCCTGAAACA	ACATTCCTTT	AGTAATATTC
10651	CGAATAACAG	CTTCATCAGT	CTGTCTACCG	ACCACTCTTC	AGGCTTCATC
10701	TTATATGACC	TCCCAAAGTG	CACTAAGGGT	TGTATTAGAG	AAAAGTGGAT
10751	AAAGTTCGGA	GTCAGGCTGC	TTGAGCTTAA	ATGCCAGCTT	CACTTACCAG
10801	CCACCTGACC	ATGAGTCAGC	TGCTTAACCA	TTCTTTGCCA	CAGTTTCCTT
10851	GTCTATGAAA	AGGGAAATGG	CTCCCACTC	AAAAAGTTGT	TAACATTAAA
10901	TTCAATCATG	TATTCAAAGT	CCTGAGCAGA	ATGTCTGGCC	ATGACTGGGA
10951	CTTAACAGAT	GTTAGCATTT	ATTATTAGTA	TCTGTCAGTC	TTGAAATGTT
11001	CTCTTCCCTT	GGCTTTTCATG	ACATTCCACA	CTCTCCTGGT	TTTCTCTTAC
11051	CTCTCTGGTA	ATACCTGTTT	GCTTATCCTT	CTTTGTCCAG	CTCTGGGATG
11101	TTACCATTCC	TTCAGGCGTG	CTGTTTTCTC	CTTAGGCAGT	CTTACACACA
11151	CTCATGACTT	CCTTCCATTG	TCCTCCACAC	ACTGATGACC	CTAAAATCAG
11201	TATCTCCAGC	CTAAACCTTT	CCACTGAGTT	CTAGACCCAT	ATGTTGTACT
11251	ATCAACCTGG	CTTGTCCATT	TGAATGTCTT	CCAGGCACTT	CAGACTCTCT
11301	TCTCTAGACT	TTGCTGGACT	TTCACTCTTC	CCCCTAAAAC	TGGCTCCTCT
11351	TCCAATGAAA	CATGTATGTC	ATTGAGAGGC	ACCACCATCC	ACCCAGTGCC
11401	TAAGCCAGAA	ACCTAGGAAT	CCTTGATACC	TGTTCTCTCT	CATCCTGCAT
11451	ATCCAAGCCT	ATCAGTTTTA	TCTCTAAATT	ATATTTTGGT	AGGTTTACTT
11501	CTTTCCTTTT	CTCCCACCAC	CACCCTGCTC	CAAGCTACCA	TCATCTCACC
11551	TGGATGTCTG	CAATAGCCTC	ATCTCCACA	GCCACTCTGC	ACCCCTAAT
11601	CTGTTCTCTA	TAGAGCAGTT	GGAAGGAGTG	ATTTTTGTTG	TTTGTTTTGT
11651	TTTGTTTTAG	ACAGAGTCTC	ACTCTGTTCC	CCAAGGCTGG	AGTGCACTGG
11701	CACAATTTCTG	GCTCACTGCA	ACTTCTGCCT	CCCGGGTTTA	AGCAATTCTC
11751	CTGCCTCAGC	CTCCAAGTA	GCTGGGATTA	AGGCACCGGC	CCCCATACCC

FIGURE 3-4

11801	AGCTAATTTT	TATATTTTTA	GTAGAGATGG	GGTTTTGCCA	TGTTGGCCAA
11851	GCTAGTCTCG	AACTCCTGAC	CTCAAGTGAT	CCACCTGCCT	CGGCCTCCCA
11901	AAGTGCTGGG	ATTACAGGTG	TGAGCCACTG	CACCTGGCTG	GAAGGAGTGA
11951	TCTTAAAAAA	AAAAAAAACA	AAAAAAAAC	TGACTGTGTC	ACTCTGTGTT
12001	GTCTCTCCTA	CCTTGATATC	TTCCACAAC	TCCCAGTGTT	CTTGGATAAA
12051	GACCAAAATC	CTTAACCTGG	CCAGGCGCGG	TGGCTCACAC	CTATCATCTC
12101	AGCACTTTGG	GAGGCCGAGG	CAGGCAGATC	ATGAAGTCAA	GAGATTGAGA
12151	CCATCCTGGC	CAACATGGTG	AAACCCCATC	TCTACTAAAA	ATACAAAAAT
12201	TAGCTGGTCG	TGGTGGCGTG	TGCCTGTAGT	CCCAGCTACT	TGGGAGGCTG
12251	AGGCAGGAGA	ATCACTTGAA	CCTGGGAGGC	AGAGGTTGCA	GTGAGCCAG
12301	ATCACGCCAC	TGCACTCCAG	CCTGGTGACA	GAGTAAGACT	CCATCTCAAA
12351	AAAAAATAAA	AAAAAATAAA	TTCCTTAATT	TGGCCTACAG	TAGAGCCCTC
12401	CGTAATGTGG	CCTCTCTCCA	CATCTCCACA	ACCTCCTGCT	CCCTGCACTT
12451	CAGCCTCACC	TCTCTTCTGG	ACAGGCCCTC	CTTCTGACAA	GGGCTTTGTT
12501	CATTCTGCTC	CCTCTGCCTA	GAATGCCCCC	TACTCTGTGT	CACTTAACTC
12551	CTGCTTATCG	TTTAGATCTT	TACCTGGATG	GCTCAGAGAA	ATATAGAAGT
12601	AATTCCTCAC	CCTGAAAAAT	AGGTTAGGTC	CCTGTTTTAT	GTTTTCATAG
12651	ACCTTTCCTT	TGAGGCTTTT	TTTAAAAAAG	TAGTTTTAAT	CTCACATTTA
12701	TTCATGTGAT	CATCTCCTTA	ATGATATCTT	AAGACCTCTA	ATAGAACAAT
12751	TTGGTCATGG	ACTGTGGGGT	TTTTGCCCTT	CATTGTGTCA	GCACTGAGCA
12801	TATTGTTGGC	ATAGGAGGGA	TATTTGTGTA	ATGAATTGCT	AGAGGTGGCC
12851	AAGAGATATG	ATGTAAGTCA	GGCTTTTCCC	TGCCCTTCCC	CTTCCCTTC
12901	CCCACATCCT	TCCTATAGCA	GCCACCGTGG	CTGCAGTTAC	TGTAAATGGC
12951	AAGACGGAAT	CAGTTCGGGA	CATTGGGTTG	TTTAGAAAA	TTGCCTGCAA
13001	GTGTCAGGGT	GATAAGTTAA	AGCTTTGTCT	TTTGCCCTCA	GAGGAGCTAT
13051	CCCATAGTGA	GTAGAAGCCA	GAGAAGCTGA	CCCCAGGAGT	CCTTCTTTCC
13101	AGCAGCAGGT	CTTGAGCTGC	ACTTCTCTGT	AGCTACAATC	CAGGCAGGAA
13151	CAAGCCCTAG	GTACCTCCGG	AGAGGAGGGC	AAGAGAGGAA	GAATGAGTTC
13201	AGCTACTCTA	GCCACCAAAC	TGATTATGAA	TTGCCCTGAA	ATCTGAAAAA
13251	TTTCAATTCC	AATCGTAAGT	TTGTTTTGTT	TCATTTTGTT	TTCTTAAATT
13301	GTATATTTGA	AAGATGGCAT	TAACTAAAAG	TATATATTCA	ATATAGAGTG
13351	GAAAAAATGG	AATACTTGCA	TAGTATCTTT	TACTTATAGG	TGATTTATGA
13401	TGGGGATGGG	GGTGAGTAGG	TTGGCAGTTT	CCCCAAGAAG	TTGGAAATGA
13451	AGTTTGTCTT	CTGTGAGTTG	AACTAATTAG	ATCCACAAGT	AATGAAAGCA
13501	GTATTGTGTT	GTAGTTAAGA	GCACACTCTA	GAACCAGATT	GCTTAGTTTC
13551	AAATCCTGGT	TCTGCCTTTT	ATTATCTGTG	TACTTTGGGC	AAGTTACTTG
13601	CCCTTTGTGT	GCTTCATTTT	TCTCATCTAG	AAAATGGAGA	GGCCAGGCGT
13651	AGTGGCTCAT	GCCTATAATC	CCAGCACTTT	GGGAGGCCGA	GGCGGGCAGA
13701	TCACCTGAGG	TGAGAAGTTC	AAGACCAGCC	TGGCCAACAT	GGTGAAACCC
13751	TGTCTCTACA	AAAATACAAA	AATTAGCCAG	GCATGATGGC	GGGTGCCTGT
13801	AATCCCAGCT	ACCCAGGAGC	CTGAGGCGGG	AGAAACACTT	GAACCTGGAA
13851	GGCAGAGGTT	GTAGTGAGCC	AGGATTGCAC	CACTGCACTC	CAGCCTGGGT
13901	GACAAGAGCT	AGACTCAGTC	TAAAAAATAA	AAAAAATAAC	AAACTGGAGA
13951	TACAGGCTGG	GTGCAGGGCT	TACACTTATA	ATATCAGCAC	TTTGGGAGGC
14001	CTAGGCGGGA	GGATTGCTTG	AACTCAGGAG	TTTCAAGATC	AGTCTGGGTA
14051	ACAGAGCAAG	ACCTCATCCC	CACAAAAAAT	CAAAAATTTA	GCCAGGCATG
14101	GTGGCTCATG	CCTGTGGTCC	CAGCTACTCA	GGAGGCTGAG	GCGAGAGGAT
14151	TGCTTGAGCC	CAGGAGGTTG	AGGCTGCAGT	GAACCATGAC	TGCACCACTA
14201	CATGCCAGCC	TGGATGACAG	AGCAAGACCC	TATCTCAAAA	AAAAAATAAA
14251	AAAGAAACGA	GCCAGGCGCG	TTTGCTCACG	CCAGTAATCC	CAGCACTTTG
14301	GGAGGCCAAG	GCAGGTGGAT	CACTTGAGGT	CAGGAGATCG	AGACTAGCCT
14351	GGCCAACATG	GTGAAACCCC	ATCTCAACTG	AAAATACAAA	AATTAGCCAG
14401	GCATGGTGGC	ATGCTCCTGT	AGTCCCAGCT	ACTCACTTGG	AGGCTGAGGC
14451	ACGAGAATCG	CTTGAACCCA	GGAGGCGGAG	GTTGCAGTGG	GCCAACATCA
14501	TGTCAGTGCA	CTCCAGCCTG	GGAGACAGAG	CGAGACTCTG	TCTCAATAAA
14551	TAAATAAACA	TAAAAATAAA	TAAAAATAAA	TAAAAATAAA	TAAAAATAAA
14601	TGGAGGCCAG	CAGGCACGGT	GGCTCACGCA	TGTAATCCCA	GCACTTTGGG
14651	AGGCCGAGGG	GGGCGGATCA	CAAGGTCAGG	AGATCGAGAC	CATCCTGGCT
14701	AACACAGTGA	AACCGCGTCT	CTACTAAAAA	TACACAAAAT	TAGCCAGGCA

FIGURE 3-5

14751	TGGTGGCAGG	CACCTGTAGT	CCCTGCTACT	CAGGAGGCTG	AGGCAGGAGA
14801	ATGGCGTGAA	CCCGGGAGGC	GGAGCTTGCA	GTGAGCTGAG	ATCGCGCCAC
14851	TGCAGTCCAG	CCTGGGCGAC	AGAGCAAGAC	TCTGTCTCAA	AAAAAAAAAA
14901	AAAAATGGAG	GTTGGGCGCG	GTGGCTCGCG	CCTGTAATCC	CAGCACTTTG
14951	GGAGGTCGAG	GCGGGCGGAT	CACCTGAGGT	CAGGAGTTCC	AGACCAGCCT
15001	GGCCAACATG	GTGAAACCTT	GTCTCTACTA	AAATTACAAA	AATTAGCCAG
15051	GCACGATGGC	AGGCACCTGT	AATCCCAGCT	ACTTAGGAGA	CTAAGGCAGG
15101	AGAATAGCTT	GAACCTGGGA	GATGGAGGTT	GCAGTGTGCT	GAGATCGCGC
15151	CACTGCCCTC	CAGTAGAGTG	AGATTCCGTC	TCAAAAAAAAA	AAAAAAGAA
15201	GAAATGGAGA	TACAAACTTA	CTACCTACCT	CCTTACAACC	TACCCTCACA
15251	GTATTACTGT	GAATAAAAGT	GTGTGTAGCA	CTGGGAACAC	TATTCACAGA
15301	GCACTCATGA	ATGTTTGTTC	TTTGTATTAT	GTTACTAGAG	AGGCAATGT
15351	CTGCCAGGGC	TGAATAATAT	GTGTGAATTG	GTGATTGTCG	CACATATCTA
15401	AAGAAGTAGT	TATTTTTTTC	AATTAATACT	TAGTTTAAAA	ACCAATATAA
15451	GGCCGAGCGC	AGTGGCTCAC	ACCTGTAATC	CCAGCACTTT	GGGAGGCCGA
15501	GGTGGGCAGA	TCATTTGAGG	TCAGGAGTTC	GAGACTAGCC	TGGCCAACAT
15551	GGTGAAACCC	TGTCTCTGCT	AAAAAAAAAA	AAAAAGTACA	AAAATTAGCC
15601	AGGCATGATG	GCAGGTCCCT	GTAATCCCAG	CTACTTGGGA	GGCCGAGGCA
15651	GGAGAATTGC	TTGAACCCAG	GAGGTGGAGG	TTGTAGTGAG	CCGAGTTTGT
15701	GCCACTGCAC	TTCAGCCTGG	GTGACAGAGG	GAGACACTGT	CTCAAAAAAA
15751	AAAAAAAAAA	ACCAAAACCA	ATATAATAAA	TAAGTGGCCA	GCAATGAAAC
15801	AGAAAGTGAA	AAGTTAGTGA	AGCAAACTA	GTACTGTATT	CAGATAAAGA
15851	TGCTGAATCT	AGATTTGGTC	ACCAGAATAG	GGTCCTTTGT	GGCAACCTGG
15901	GCTAGTTTGG	CTGACTCACC	ACTGCCAGGA	TGAAATTTCT	TTTCACTGGCT
15951	ACTCATTTC	CTTTATTTTA	AGTCCATGCT	CACAGAGCAA	CCTTCTGATG
16001	CCTAATTCAG	CTTCCTGGGA	TACTTAATAA	CAGGAAGGGT	CTGGAAGTAG
16051	TACCTGTATA	GGGGATATGA	GTGTTCTGAT	TTTAATAGTC	AATTCATAAG
16101	TGTACAGAGG	GTTTGATAAA	TGGTTAGGTC	AGAACCATCA	CAGAATGTCT
16151	ACACCTCTTT	GGACATTAGG	AAGGTCAAAA	ACCTGAAAGG	CCAAAAGCTA
16201	GGCCTAGATT	AGGGTCATTC	ACCAAGAAAA	CATCAGCCTT	GAAGAGTTCT
16251	CTGGGTGGTC	CACCACTCAA	CCTTCCTTTG	ATCACACCTC	CTTCCTCGTT
16301	GCTTCTTTAA	GCATTGACCT	GTAATGGGTA	TGGAATTTTT	TGCTCACCTA
16351	ACTCCTTCCT	TTTACAGAGG	AAGAAGTTGA	AGCCCAGAGA	GATTTAATGG
16401	CTTGCCCTAAG	ATCACACGCA	GATTTTCTGT	TAACCAGGGT	GATTTTTCAG
16451	GTGTTCCCTG	CCAGACGAGG	GCTTTTTTCC	TTGAATTGCC	TAGAGATTTC
16501	TTGAGATATC	CGAAGCATTT	TTCCCAGTGC	AGCCTGGAGA	AGGATGTCCC
16551	TGTCAACACA	GCATTTGTTA	CTCAATGTTA	GACATTCAAT	TTTCTAATTA
16601	GTATCATGGA	GCAACAGTGG	ATGATTATCT	ATAAGGGGTT	GCAATTCCAT
16651	GCTTATGTGC	TTACAGCCCA	TATAGACAAA	TATCAGCTGT	TAAAATGACA
16701	AGGCAGTAGA	GATGTGGCCC	CAGGACAAAG	GCATACTCTG	CTGTTAGTGA
16751	ACACTAGTTG	GCCAGCAAAT	TTACATGGG	CATATACACG	GCCAACTGTA
16801	GACTTTAGGC	ATTTATACCC	ATTACAGAGG	CCAACTGGC	AACTAAAGAT
16851	CAGCATTCTC	TTTGGCATT	CAGCTTTGCG	TTCTGTAAA	AATCACTGCT
16901	TGCTTAAATA	CCTCTGATAG	CTCTTCACTG	CCTGTAGGCA	ACTCTTTAGC
16951	CTAGCAGACT	TGGTCTTTAG	TGCTCTGCCC	CTACTCTCTT	CCACCATTCT
17001	GGCCTCCTGT	CTAATTGCTG	CCCATATGTG	CCATGCACTA	GAGCTTACAG
17051	ACCTGCTCAG	CGTTATATGA	GCATACCATA	CTCTTTATGC	CTCAGTGCAT
17101	TTGCACATGT	TGTTCCCTCA	GGCCAGAATG	CCTGTTACTG	CCTGGCAATC
17151	AGCCTATTAG	AGTCTGCCAA	TACCATCCCA	TCTTCTGTGG	AGGAGCCCCC
17201	CGCCAAATCC	ACCCATACCT	CTCCCCACCA	ATCAGAGACT	TCTTCTCTCT
17251	TTGTTATTCT	CTTCGTTATT	CTCTTCATAC	CTCAGTTATA	TCCATTTTCA
17301	TATTTGTTTA	CACATCTAGC	ATCACTCTTA	GAGTGTGAAA	TTCTCCAAGT
17351	GTGGAGCCGT	ATCTAGTTTG	TCTTTGTATC	CCAGAGCTTA	GCAAAGTGCC
17401	TAGAATGTAG	TGGGTGCTCA	GAGTGTGTTG	TGGGTGAATG	ATGTATTTGT
17451	TGAACGACTC	TTTGACACT	TGAATAAAGT	CCATCCAGTA	TGCACCATTG
17501	CCATCTCTTC	ATTCTTTTAG	ATTCTTTTAG	GCAAGAGCTT	ATCTTTTGAG
17551	GTGATAAGAT	AAGCTCAAAC	TTATGTAGAC	TAAGACCTCA	GTCTGTAAAT
17601	GTCATCCCTA	AGTCTTAAAC	CATCAAAACC	AGGGCCTCAA	GGAATGGCAT
17651	GCCTTCTGCA	ACTGTAGCAA	CCTGCTGTGC	TTATTTTGCC	GTGTTTTTCA

FIGURE 3-6

17701	TTTTTCCCC	AAAAGCTAGA	GTCCCTTCTC	CCATGGGCAG	TGCTGGAAGT
17751	GTGCTAACAA	ATTCTTTCTC	CATACTGCTT	ACGATTACAA	AAAAAACCC
17801	CAGCATCTCA	TGCCAGACTT	GAGTTAAGGT	TGTTTTCTTT	TGTGTGTCAG
17851	CTGTATTCTG	GTCATGACTT	CCTGATGATG	CCCTATAGAG	ATTTTGCTGA
17901	GATCAGAGGG	TGCTCCACTG	CCATCAGTAG	CACTGACTCT	TGCAGAAGCA
17951	CCGTTTCTGA	AGTTGGCTAA	TGTCATCCCT	CACGTTTGTT	TGTTTGAAAT
18001	TTGTTTTAGT	TCCAGAGATA	GCACTTTCAT	GGAATGACGC	TATCTTCTAG
18051	AATCACTTTT	TTTTTTTTTT	TGAGTTGGAG	TCTCGCTGTG	TCGCCAGGCT
18101	GGAGTGCACT	GGCACAATCT	CAGCTCACTG	CAATCTCCAC	CTTCCGGGTT
18151	CAAGTGATTG	CCCTGCCTCA	GCCTCCCGAG	GAGCTGTTAC	TACAGGCGCA
18201	CACCCCCACT	CCTGGCTAAT	TTTATGTGTT	TTAGTAGAGA	CGGGGTTTCA
18251	CCGTGTTGGC	CAGGATGGTC	TCGATCTCCT	GACTTTGTGA	TCTGCCTGCT
18301	TCAGCCTCCC	AAAGTGCTGG	GATTACAGGT	GTGAGTCACC	GCGCCTGGCC
18351	TAGAATCACC	TTTTTATACC	ATAACGTGAG	CACCACTGCC	GCGTCACCAA
18401	GGAAAGAGAG	AGGCAGCTAC	TGTGGGGTTA	CAAATGGGTA	AGAGTGGCAC
18451	CAGGAAGGTG	AAAGTCTCTA	CTTAGCCAAG	GCTTAACAAA	ATGTCAATCA
18501	CCAAACATTT	ATTTATTAAG	CTACGTTTCA	GATAAGAAGA	TGAACAAGCT
18551	ATCTGTACAT	TCATTTTCTC	GTTTGTAACA	AGGTAAATGAT	AGTGATCTAT
18601	CCTGCCCTGG	TCTGAGGGTT	ATTGTGAGAA	TAAAATGAAA	TCAAGTGGAA
18651	AAGCACTTAG	GAAAAGAGAA	AGCATTTGTT	TTCAATTGTT	AGTGTGGATC
18701	AGAAACACTG	GGGCTTGTTT	AAAATGCAGA	TTCTTAGCCC	CAGTCTCAGC
18751	GATTCTGATT	CTGTATATCT	GAAGTGGGAC	TCAGGAATCT	TGATTTTCAA
18801	CAAGCTGACC	AGAGGGTCCA	ATGCTGCTAT	TCCTTTAGTT	ACACTTTCAG
18851	AAATATTACT	GTAATCAAAA	TGGCAAGAAT	AAAATAGTTA	TTTGAGGCAG
18901	TTTGTAGTATG	TTGGACCTGG	AGTCCAAAGA	CTTGGGTCAA	ACTCCAGCTT
18951	TGTCAGTTCC	TAGACCTGTG	ACCTTAAACA	GCAACCTTCT	CTGTGAAGCT
19001	TAGTTCCCTC	AGGAACGGCT	CTGGTCACCT	CCTGCTGTAC	TCCATTGATG
19051	ACTCACCACA	TAAGGCTCCC	TGGGAGTCCC	CCAAACCTTT	GCTCTCTTAA
19101	CTCCTTTTAC	AGCCTCCTAC	ATCTCCTGCA	GGTGCTGTCT	TCTCCTCCTT
19151	TTTCCAGGCC	CTGCTCTGAC	ACAGCATTCA	TTCTCCTCTG	GGAAGGGTTC
19201	CTTCAATGTG	TCTCCAAGCA	CATCACACCC	AGGAAGGACC	CTGTGGCCAT
19251	ATCTGTCTAT	CACCAAGTCA	AACTACGTGA	AGGCAGGCAC	TAGGTACTGT
19301	CAGTGCCACG	CATAGGCCTG	GCCCATACCA	GGTGTCCACA	GATGCCTAGT
19351	AAAGAAACCT	ATGATTCAGG	ACCCCATGA	TGAGCAACTA	TAGCACTAGA
19401	ACAGTGATAA	TAACATAATGT	TTATAATGCA	TCTTCAGTTT	ACAGAGGGCT
19451	TTTGTACTCA	TCATCTAGTT	TAGTTCCTGC	AACAACCTCT	TGAGGAATAT
19501	AGCACAAGCA	GGACAAGGGA	AGCCCAGAGA	TGTTAAATAA	TTTATCCAAG
19551	TTTATGCTGC	TGGGAAGGGC	AGCACTGAAA	TTAAAAGAAA	AGTTTTCTGA
19601	GCTCAAATCC	CATGCCCTTT	CCTCAATGTG	AGCTCTAGCA	AGGTATTTCAG
19651	GAATCCTGCC	TCTACAGTTC	AGAGCCTCAA	ATTGCTGGGT	ATGTTGAGTT
19701	CTTGTATCTG	ATTTTCTAG	ATTTCTGCC	CACATTCTTA	CTGTCTGGAT
19751	ATCAGGAAAG	AGTTTATCAA	ATGCCTGTGG	AAATCCAAGA	TAAGGTCTCA
19801	TGATGAGTAA	CCCAGTGAAA	ACATGAAGTC	AAGTCTAACT	AGTCACTACT
19851	ATTTCACTAC	TGCTGACTCC	TGATGATCAG	CTCCTTTTCT	AAGTGCTTAC
19901	TGTCCACTTA	TTCCATCATC	TGCCTAGAAT	TTATGTGAAG	GAATCAAAGC
19951	AAAAGGATCA	TAAGGCTTCC	TTTTTCCAGT	ATGTTTTTCC	TCCTTTTTGA
20001	AAACTGGGCC	AGTTAGCTAT	CTCCATTTTT	ATTTTCATGAA	TACATCCCCA
20051	GCGCCTGGTA	TATAGTAGAT	ATGGAACATT	ACACTTTGGA	GATATTGCAC
20101	CCATTCTCCA	GTTTCTCCAA	AGTTACTAAC	AATGGTTCCA	TCACTGTGCC
20151	AACATATTTT	CTTTTTTCAA	TATATTGGGA	AATAATTCTC	CCAGTCTGAA
20201	AATCTGAACA	CATTTTCATGT	GACTTGGTAT	CCTCATATGT	CTTGGGCTTC
20251	CAATTCTCCA	TTCCTAGTTT	CAAGTTCATG	AACTGTAAAA	CAAAGGATTA
20301	GACTAAATCT	CTAAAGTTCT	ATCCAGATGC	CAAATCTTTT	TCTCTTTCCA
20351	TGATACCTAA	GATAGATGCC	AAATATTGTC	TTTTACCTGG	TGTTTGTGAA
20401	CATGACATCA	CATTACAGGA	GTAGCAGATA	CTAAACTCTC	ACTCTGTAAA
20451	ACACTGACTG	AGTTCCATGA	GCCAGATACT	GAAGTGAGCT	TGTTTACATA
20501	TGTTCTCATT	TAATGCTCAT	AACCCTGTGA	AGCTGGGAAT	TGCTGGGACA
20551	TTTTATTTAT	TTATTTATTG	AGACGGAGTC	TGGCTCTGTC	ACCTAGGCTG
20601	GTGTGCAATG	GCATGATCTT	GGCTCACCGC	AACCTCCGCC	TCCCGGGTTC

FIGURE 3-7

20651	AAGCGATTCT	CTTGCCCTCAG	CCTCCGCAGT	AGCTGGGATT	ACGGGGCACA
20701	CACCACCACA	TCCAGCTAAT	TTTGTATTTT	TAGCAGAGAT	GGAGTTTCTC
20751	CATGTTGGCC	AGGTTGGTCA	CGAACACTTG	ACCTCAAGTG	ATCTGCCTGC
20801	CTCAGCCTCC	CAAAGTGCTG	GGATTACAGG	CATGAGCCAC	CATGCCTGCC
20851	CGGGACCCTT	GTTTTAGAAG	GATGACTGCT	GCTATAATGT	AGAAAGTGAT
20901	TTGGAAGAGG	GGAGGAGTGG	GGCACGAAAG	ATGGTTAGTA	GATGGGGGTG
20951	GTAATGCTTA	CCTTTCAGTA	TTTGGAGGCT	TCGGAGTCCT	CAAAAATTCT
21001	CTTCCTTGAT	TGGAGTCCTC	CCAGCCAATA	GAGGGCTTCA	CACAAACAGT
21051	TTCTTGGGTT	TTGAATTGTT	TGACCAGAGC	TTTCTTCCGA	CAAAAGGTTG
21101	GGGTGATTCA	TTCACCTACC	ACACCTTGCC	TGAACATTCA	CTTGGGGCTG
21151	CCGGTTATGA	AGGCTATTGT	TCTCCAGCCT	GTCACAGACG	CTTTGAAGAC
21201	CTGTGCCTCA	GCTGGTTCTA	AGGAGTCAGT	TTGTTTCACT	CCGTGCCAGG
21251	TTTCCAACCT	ATGAAATGTG	CTGGAGATTA	ACACCTCTCC	TGCCATTTTA
21301	TCCCTACTAT	AATTGCCAGT	CAAAGGATTG	CTGCAGTTGC	CTCTGGCAGC
21351	CATAACTGAT	GAATGTTCTG	CCAGCTGCTC	TGAGGACCTA	GAAGAGCAGT
21401	TTTCTATCCA	GGACCAGTTT	CCAAGGGTGG	GAGGGTGAAA	TATATCCTCC
21451	AGTGTGACAT	TTCATCTCCC	AGTGATGGGT	GGCTTGGGCC	CTTTGAAGTT
21501	GGCTCTGAGG	AACCACACAC	TTGGGTCTGA	GCAGCCAGCA	GCTTATCACA
21551	TCTGGTGATC	AATCCTTCAA	AGGTTCTCTC	TGAAGTCTGA	ATTTTTGGAG
21601	GTCAAATGGA	TTCCACCTGG	GAGGGGCTTC	TGCTTCAACT	CAGGACATGG
21651	GGAGAAGGCT	GTTCTCTTTC	CAGGGGGAGG	CAGTTTTTCAT	GGCATTGAGA
21701	TGTCCTCTCA	CTTATTCCCC	ACCCACCCAC	CAAGTCCTTT	GTAAGAGGAG
21751	TAGGGGGAGA	GGAGAGCGCC	TGCAGCCTCC	TGCTCACATT	CCTAGACACC
21801	GACTCACTGA	GCCCGTCGCC	GCTGGAACAG	CAGAGCTGTG	TGAAATGTCA
21851	AGAGGAGTTA	TGCTCATAGG	CTCCCTGGCC	TCAGTCTCTT	TGTGGCTTGC
21901	ATATTCTTCC	ATTAGTACTG	TGTTTCATCAC	ATGGAAATCA	GAGGGTACAA
21951	TTAAAAGATA	ATTTGCTAGT	CCAGACTTFA	ATTTGGGGCC	CCCTTCTTGC
22001	CTGATTGAAT	TACAGGGGAA	CATAATAGAT	TTTTGGTGAG	AAATAGTTGT
22051	CTGTGTGGCT	GGGAGAAAGA	TTGCTCCCAG	CTCTCCAGCT	GGGCAGCCCT
22101	TTCACTATCC	CGTATGTTAT	TTCCCCACTT	CCAGCCCACC	TCACCTCCTC
22151	TGTGGCCCTT	GTGTGTCCCC	TCGGCTAGGA	TCCTGACCTC	CTGCTCAAGA
22201	GTTTAAACTC	AACCTTGAGC	CCAAGGAAAA	TAGAGAGCCC	TCTGCAACCT
22251	CATAGGGGTG	AAAAATGTTG	ATGCTGGGAG	CTATTTAGAG	ACCTAACCAA
22301	GGCCACAGCA	GAGAGAGTGA	CTTGCTAAAG	GCCACATAGC	TAGCCACAG
22351	TAGTTGTAAC	AATAGTCTTA	ATGATATTAA	TGGCTAACAT	TTATCAACCT
22401	TTAATGTGTC	CCAGACTTTG	TGCCAAGGGC	TTACATGCAG	TGCATTGTCT
22451	CATTCAAACC	CAGACAGTCT	GGCTCTGGGC	CCAGGCTGAG	CTTTGGTATA
22501	GCATGGTAGA	ACGTTGTCTA	TAATGTCTAG	TCTGGGTTCA	AATCCTGGCT
22551	TCACCTCTCA	CATTTACAGC	TGAGTGACCT	CAGGCAAGTG	ATTTAACCTC
22601	CCTGTACCTC	AGTTGCTTTA	TCTGTAAAGA	GAAAAATCAC	AGCACTGTGG
22651	AATAGTGGGG	GTTAAAATTC	ATTCATACAA	GTAGTGCTGC	AAGCAATGTT
22701	TAATACAGGG	TGAGCACCTG	TTCACTGCTT	CCTTCTTCTG	GCTGCCTCTG
22751	GGGCTAGAGT	GTGGTGTCTT	CGTGGTATAG	ATAGATAGAT	ATGGCTGAGC
22801	TCTGCACAAA	CACCAAGAGC	TGTTCTTCAC	TATTAGAGGT	AGTAAACAGA
22851	GTGGTTGAGC	TCTGTGGTTC	TAGAACAGAG	GCCGGCAAGC	TATGGCCCAT
22901	TGCCTATTTT	AATACGGCCT	GTGATTGATT	GATTTTTTTT	TTCTTTTTGA
22951	GACAGAGTTT	CACTCTTGTT	GCCCAGGCTG	GAATGCAATG	GCACGAACTC
23001	AGCTCACCGC	AACCTCTGCC	TCCTGGGTTC	AAGCGATTCT	CCTGTCTCAG
23051	CCTCTCGAGT	AGCTGGGATT	ACAGGCATGT	GCCACCACGC	CTGGCTAATT
23101	TTTGTATTTT	TAGTAGAGAC	AGGGTTTCTC	CATGTTGGTC	AGGCTAGTCT
23151	CGAACTTCCA	ACCTCAGGTG	ATCTGCCCCG	CTCAGCCTTC	CAAAGTGCTG
23201	GGATTACAGG	CGTGAGCCAC	CATGACTGGC	CTGATTGACT	GATTTTTTTA
23251	GTAGAGATAG	GGTCTTGGTT	TGTTACCCAG	GCTGGTCTCA	AACTTCTGGC
23301	TTCAAGCAGT	CCTCCCTCCT	TGGCCTCTCG	AATGCTGGGA	TTATAGGCAT
23351	GAGCCACTAT	CCCTGGCCTA	TATGACCTGT	GATTTTTAAT	GGTTAGGGGA
23401	AAAAAAGCAA	AAGAAATGCTT	TGTGACATGT	GGAAATTACA	TGAAACTCAA
23451	ATATCAGTGT	CCCAGCCTGG	GCAACAAAGT	GAGACCCTGT	CTCTACAAAA
23501	AATAAAAAAA	AATAAGCCAG	GGCCGGGCGC	AGTGGCTCAC	ACCTATAATC
23551	TCAGCACTTT	GGGAGGCCGA	GGCAAGTGGA	TCACCTGAGG	TCAGGAGTTC

FIGURE 3-8

23601	AAGACCAGCC	TGACCAATAT	GGTGAAACCC	TGTCTGTACT	AAAAACACAA
23651	AAATTAGCCG	AGCATGGTGG	CATGCGCCTG	TAGTCCCAGC	TACTTGGGAG
23701	GCTGAGACAA	GAGAATTGCT	TGAACCTGGG	AGGCGGAGGT	TGCAGTGAGC
23751	CAAGATCGCG	ACACTACACT	GCAGCCTGGG	CAACAGAGCG	AGACTCCGAC
23801	ACACGCACGC	ACGCACACAC	ACACACACAC	ACACACACAC	ACGCTGGGTA
23851	TGGTGGCCAG	CACGTGTGGT	CCCAGGATGC	ACTGGAGGCT	TAGGTAGGAG
23901	GATCACTTGA	GCTTAGGTGG	TTGAGACTAC	AATGAACCAT	GTTTATACCA
23951	CTGCACTTTA	GCCAGGGCAA	CAGTGTGAGA	CTGAATCTCA	AAAGAAAAAA
24001	AAAAAAAAGA	AAAAAATCTT	TCCATAAGTA	AATATCTGTT	GGAACATAGC
24051	CATGTCCCTT	AGTTTATGTT	TTATATATGG	CTGCTTTTGC	CCTATAATGA
24101	CACAATTGAG	TGGCCACGAC	AGTCTGTATG	GCCTGCAGAG	CCTAAGATAT
24151	TTGCTCTCTG	GCCCTTTACA	GAAAAAGTGC	CTTGACCTGT	GCTCTAGAGC
24201	CATATGTACC	AGGTTTGAAA	CTCAGCCTCA	CAGCTGGGTG	TGATGGCACG
24251	CATCTGTAGT	CCCAGCTACT	CTGGAGGCTG	AGGTGAGAGG	ATCACTTGAG
24301	TCCAGAAGGT	CGAGGTCAAG	ATTGTAGTGA	GCCATGATGG	CATCACCGCA
24351	CTCCAGCCTG	AGTGACAGAG	AGAGACCCTG	ACTCAAAAAA	AAAAAAACAA
24401	AAAAAAAATA	CACCCTCACC	ACTTATCAGC	TATTTGTCTT	GAGAATAGTG
24451	ACATAACCCC	TCAGAACCTA	TTTCCTAATC	TGTTAAATGA	GGCTGATGAC
24501	GTTTCCTCCT	TTTACTGGCA	ATTTAAACAT	GATGGATAAT	AAATGCTAAG
24551	CACTTAACAC	AGGGCCTAGA	AGATATTAAC	TGCTCAATAA	ATGGTAGCTT
24601	CTTAACAGTA	TTCAAACCCA	TGTGCTCTTA	TCAGATGCAT	TGTTGTCCCT
24651	GTGTCCAGTT	GGTGGAATGG	GAAAAAGGCTC	CCTTGTAACC	CCATCTACCA
24701	TCTTTATCAG	ACTTTCCTGC	CATGGTTCAC	AGTAAGAGAT	AGAAGCTGCA
24751	CGGTGACTTC	TGGCTCTTTA	CAATGGTGAG	CGGTGTGTGG	CTGGTAAGGG
24801	AGAGCTGATG	TCACTGCCCC	AAATCCAGTA	GTGAGATCTG	AGTGTTCCTG
24851	TTTCCTCCAG	CAGCCTTGCT	TTTTCTTTTA	CAATCCTGCA	GGCAGGGAGA
24901	CAAGGGCTTT	CTACATGGTA	GGCTCTGGTT	TGGTCATCGT	CACAACCTGGG
24951	GGCTGTTTCA	GTGGGCTCCC	ATTCCAGATA	CCTAGGCTTA	TCAATCCCTT
25001	TTGGCACCCC	AGGCCTTTTT	CTCCCTCATG	CCCCATTTTT	CAGTTTGAAA
25051	AGCATGGTTA	TCACAGGACA	AGTAGAAGAA	GCTCCACTGT	CCACTGAGGC
25101	CAATGGATGG	TGTTCTGCAT	GTGAACACTC	AGTGAATAGT	GAGTGAATGA
25151	GAGTAACCTG	GGCTCCATCC	TATTTGCAGA	GAGCTTTGGA	AAAGATTTTT
25201	CTCCTTAAAG	AGCCGAATG	AAGCCTGGTA	GTGGGAGAGC	TCCAGCTCTA
25251	GAGTCACATG	AGCCTACATT	TAAATTCCAG	CCCTGCCACT	GACTCCCTTT
25301	TTGACCTTGA	GTGAGTTACC	TAATCTCTCT	GTACCTCACT	TTTCTTGTCT
25351	GTAGAGTGGG	AATAATTCTT	GTCTCAGAGA	AATAAAAGAG	TGCATATAGT
25401	GTTTGCCACA	TGGAGACACA	TCAGGTGTAG	GTTAATACTC	TGGGCCTTGT
25451	TTCTTTATTT	GCAACACAGC	CCTGCCCTGG	AGTGGAAGTG	GCACCTCCCA
25501	TTGGTCAGCT	CTTGAGGCTG	TCCCCAGGAC	AGGCAGAGGG	AGGGAATGAA
25551	TGGGAGCCCT	AGTGCCAGGA	CAGAACAGAT	GGCAGCTCAG	AGCTAGGATG
25601	GCTCTCTGGA	CCTGTCTCTC	CTACCAGAGG	TCCCCCGCTC	TGGTGTGGCT
25651	CTTCCTGGAC	CTGGCATCCT	CTGCTTTTTT	TTTTTTTCCA	CCTCCAAGCA
25701	GAATTACTGT	CCTGTAGGCA	GCTCCTCTGC	TTGAGGACAT	CTGGGGCCAG
25751	ATATGTTTCA	ACTCTATCCT	GCCTTGCCCT	TCCCTGAGCT	CAGGATGGAC
25801	GCTCAATTGG	TCCCAGTTAT	TGTCTGCAGC	GCCTGCCTGC	AGCCTCGATC
25851	CAGCCCAGCT	CCACCCCTTG	CCTGCAAGGT	CTGTTTCCTA	ACAGCTGCTC
25901	CAACCACACA	CCTCGGTTCT	GCGGGAGCCC	CTCCTCTTCC	TCCCTCCCTC
25951	CCTCATTCAG	GGGTGGGACT	GAAGAAGAAG	GCTAACTTGA	CAGCAGCGCT
26001	TCTTTCTTAG	CTAGTCACCG	GCCCCTGCTC	AAGAATGCCA	GTGTGTGTGT
26051	AGCCTCCACA	GAGAGGTCGT	TTTCTCGGAG	TCCAGAGGGG	CCGCCTGAGC
26101	TTCTGAGAAC	TAGGGAGGAG	CCATCCCAGC	CATGAGCCCC	TGTGGGAATC
26151	TGCTGGGGGC	CAAGTGGCCT	GGAGTCCTCA	GGCTCCCGCA	GCTGCTCCGG
26201	AGGGAGAGGT	GAGCTCAGGG	CAGCCTGCCT	GCAGCCAGAG	GTGCCGGGAG
26251	CCCCGGGCCT	GTCATGGTGG	CCATCTACAG	CCGGCCTGAG	GCAGTCACAG
26301	ACGGATTTCG	AGCTGAGCCT	GTCTATCTGG	TGTGGGAAGA	AGATGGGGAG
26351	TTACTTGTCA	GTCCCCTTCA	ACTTCACCTC	CAGAGACCTG	TTTCGGTGAG
26401	TTGGTTCCTG	AGTTCCCCTC	TCCAATCTCT	CTGGCCCCCTG	GTCCTGAGAG
26451	GAGGGTGGTC	TCCCTAAATC	TCCTTCTCAC	TTAGTCCTTT	ACCATCGGTT
26501	CTGCCGGGCA	GAAGCCAGCG	GAGGTTATAC	CCAAGGAGAA	TCGGCCTTGT

FIGURE 3-9

26551	GAGGTACCCC	CATTATGTCC	TGGAAGTGGT	GAGGGGAGGG	ATATACCCAG
26601	AAGGAACTTC	TTAGGGAGCT	CCAGCTCCCC	TTCTATCCCA	GACAAACCTG
26651	AAGGAGCCTC	CAAAAGATGC	CACTGACCTG	CCCATTGTAG	ATGTTACTGC
26701	TTCCGGGGGG	AATAGCCCAA	ATAGAGTGCT	GTTTCCAGCT	CTCACATGTC
26751	TTACCTGCGG	GCCATGCTGC	CTGCCCAGGA	ATTTGTCCCA	ACAAGCAGGA
26801	TGGGCAGGTT	TTGCCAAACT	GTGGAAACTG	GCAAGTCTTG	GGTGTGGGTA
26851	GCCTGGTACA	CAGTAGGCAC	CTTATAAACG	TTTGTCTCT	TAATGGCAGG
26901	CACATTTGCC	TCTGGCCTTG	AAGGGCTTCT	GAGCTCCCAG	GTGAATGTAG
26951	TTGCTGGGGA	AAGACCTGGG	CGAGTGCTTC	TAAGACTGGA	GCAATGGGCT
27001	TTAGAGTGTT	CCTGAGCTGC	TGGGCCAGCC	CCCACACCTC	CTCAGTCCCT
27051	AGGCCTAAGT	ACCTCCACGA	GCCTCTCTCT	GTGGGGCTTC	TCAGAGGGAG
27101	ATGTGGAAAC	TCTACCTCTA	ACCTGGCTTT	CTTTGCTCAT	TGCCCCACTC
27151	CACCTCCCAT	AGAAACTCCC	CAGGGGGTTT	CTGGCCCTCT	GGGTCCCTTC
27201	TGAATGGAGC	CATTCCAGGC	TAGGGTGGGG	TTTGTTTTCA	TTCTTTGGGA
27251	GCAGCCTGTT	GTTCCAAAAA	GGCTGCCTCC	CCCTCACCAG	TGGTCCTGGT
27301	CGACTTTTCC	CTTCTGGCTT	CTCTAAGCTA	GGTCCAGTGC	CCAGATCTTG
27351	CTGCCGGGAT	ACTAGTCAGG	TGGCCAGGCC	CTGGGCAGAA	AAGCAGTGTA
27401	CCATGTGGTT	TTGTGGAATG	ACCGGACCCT	GGTAGATTGC	TGGGAAGTGT
27451	CTGGACAGGG	GGAAGGGGGA	AGGGAACCTG	TCCTCAATGC	TGACTCTACC
27501	AAGCGCCCTG	CTAGACACTT	TATCCTTTAA	TCTCTCAACA	GCCTAAAGAG
27551	ATTATATATC	CCCATTTTAC	AGATGAGGCA	ACCAGTTTCA	ACAGAGTTAA
27601	CATATGGAGC	CTCACTGGGC	AGCTTTTTCT	GTCTTCCTGA	CTTTCTCTCA
27651	TCCTTCAGGG	GGCTGCAGGT	TTGTTTTCTT	CTCCTAGTGG	AGAGGAAATT
27701	CTCAGGTTTG	TTTTCTCTCT	CTAGCAGAGA	GTAAAAAAG	GGATAGTTTG
27751	CCTGACTTGT	TGAAGGTGTG	GCTGAGATTG	TTTTCTAAAG	AGCCAATGGA
27801	AATTGATCTT	GAGTTTAGGA	GAAAGCTTTT	ACATGTGGAA	TTAAGATGCC
27851	AAGTGTTGAA	GTAGCCACAT	TTCAGTCTCT	CATTAATTTT	TCTTAATCCT
27901	GGGAAGGCAG	CTTAGGAGAA	GGGTTGTTCC	TTTAGGAGCC	AGGAACTATA
27951	CCCCTTTTAC	CCTTGGAGAG	GCAGGGAAGC	CAGGGAGGAC	ACAACCTTCT
28001	AGGAAGAGGA	GAAGCTAGAG	CAGATAGTGA	ACTCTCAACC	TGAACCTTTA
28051	AGGGCCAGAC	CACTAATGCC	ACCCAAGTCC	ACCTGCCGTT	TGTCTTGTTT
28101	TGTCCCAGGC	TTTCTGGAGA	ACCTGATCTT	CTTGCCCCTA	CCCCCAAGCT
28151	CCGTTTGCCC	AGCTAGATGC	TGGGGGGTAC	TGACTGACTT	TCGTAGACAT
28201	TCTTCCCTTC	CCCAAATAAG	AGGCCACATT	CCTGAAGTCA	CTTCTGAAGA
28251	GATAGCTGCC	ACACAGGGCT	CTTTCCCCCC	AGGGAGGGAC	CACCCAGACC
28301	CTCTGCTCTC	CCAGGTATCC	GTTACCACAT	CACTACCTGG	TCAGAAAGCT
28351	GTTTCTGCCA	TTAGCCCCCT	CCTCTTTTAT	TATAGGATAT	CCTCAAGGGC
28401	TCCTCTTTGG	GCCTCAGTTT	CATCCTTGGC	AGAAAGTAGA	AGCTAGACTT
28451	CTTGGGCTCC	TGAACAGGGT	CCTTGCTGGA	TTCTGTGAAA	CAAATTAAGT
28501	TCTTGACCC	AGGCCTCTGG	GGGAGTACAA	AGTCTATGGG	AGTTCTGGGG
28551	CTGTGGTTGC	AAGGAAAGTG	ACGCAACCAG	ATTCCATGGG	GACATGATCA
28601	GGCGTGACAT	GTGAGGGAGG	AAGAGGGAGC	AAGGGAATGA	AGAATACAAC
28651	TTCTGTGTCC	CATACACCCC	TGCTGACAG	GCCATACATA	CTCAGCAGAG
28701	AATGCACTGT	CTTTCCTACC	ACACTAGCGT	GAGGAGTGAG	CTGCAATTAC
28751	CACGTGTGCT	CCAAGTAAGA	AAATACCTCA	AATTGGAATT	TACAAAAAGAG
28801	GTAAATTAGG	GAGTGGCTTT	TGTCGGACAT	CTTTAAAGCA	TTTTTCTTTT
28851	TATAGAATTT	CACCTAATGT	CCAATACTGA	TTTAATGAGC	TTGGGTTTAC
28901	ACATTATCTC	TTGAAGAAAA	CAAATGAACC	TTTGTGTTCC	AAAGCAATCC
28951	ATGTTTAAAG	GGAAAAAATT	ATGCATAACT	CTGCCCAGCT	TCACAGTAAC
29001	CTTTGGCAGG	TGCCTTAGGT	CCTCTGGGAC	TCTTTTCTTT	ATCTGAAAAA
29051	TGAAGGACTT	GGATCAGGTG	AATGGTTCCC	AGCTCTGCAA	CTTATGTGGC
29101	TCCTCAGAGG	CACACAAGCT	CTTTTCCATT	ATTTGCCAAA	TAATGGAGGC
29151	CCTGTCTTTA	ACTGCAGTAC	AACTACACAA	AATACTTGAA	ACTACAGTCT
29201	TCCTGGTTTT	TGGTTGGAAC	TGAATCAGTG	CACTCTAGCA	ACACTTATTT
29251	CTTGCTGTTC	GTAGGCTTCA	TTATGTGTTT	GGTTAATTTT	TTAAAAACAAC
29301	AATAACATAT	TCCATAATAA	TTACAGCTTA	ATTGGCAGAC	TGTTTCAGTC
29351	TATAGATCTC	CAGGAAGGA	GGAGTAATAA	AGGGATTTTT	GACTGAGCTC
29401	TTATGGAACA	GAGTCTCTCT	AGGCCCTGT	CATATCTGCC	CTTCTGGGCC
29451	CTGGGGAAAA	GTTGGCATCC	CCAGTTGTGG	TGCTCTCCAG	GTGCCCTCAG

FIGURE 3-10

29501	GCTGTGGTGG	AGGGAGCTTC	CCATTCTCTC	CTTCAGCCCA	CTCAATTGAG
29551	AGGCTAGGGG	CTGAAAGAAG	CTTCTCTACA	ACTGGCTGTT	CACTGGGAGG
29601	TTAAGGGATG	ACCATCCAGC	CAGGCCTTCC	TCAGGACATG	GGAGGGCTTA
29651	TGCTTTAACA	TGTGTAAATC	CACTGCAATA	ATGACTGGTT	CTTTTACCCC
29701	ATAAGGTTGA	GAATTTACCT	GTAAACATTT	TTGTCTGAAG	AATTTGGATG
29751	TAAGTGAGGG	CTGGGCCTCT	ATCTTATCTC	ACTTGGCTTC	TCTCAGCACA
29801	GCACCTTGCC	TGCTTGTTCT	TACACATCCT	AGATGCACAG	TAACATTTTC
29851	CTAATTATTA	GAAATCTATT	AGAATCAATT	GATTTTCAGT	GGGCTTGGTG
29901	GCTCCTTCCT	GTAAATCCAG	CACTTTGGGA	GGCTAAGGCT	GGAGGATCAC
29951	CTGAGTCCAG	GAGTTTAAAG	CCAGCCTGGG	CAACATAGGG	AGACCCTGTC
30001	TCTACAAAAA	ATAAAAAATT	AGCCAGGCAT	GGTGGTGTGC	ACCTGTAGTC
30051	CCAGCTACTC	AGGAGGCTGA	GGCAGGAGGA	TCTCTTGAGC	CTGGGAGGTC
30101	AGACTACAGT	GAGCAATGAT	TGTGCCACTG	CACTCCAGCC	TGGGTGACAG
30151	AGTAAGACTC	TGTCTCTTAA	AAAAAAAAAA	AAAAAAGTTG	ATTTCTATTT
30201	GGATAGATAA	ATAATTCATT	TTAGGACCTT	TCTTTTTCAC	TTACAGAAAT
30251	CTGTTTCATT	CTGGGCTGAG	AAGCAGGTCC	ATATTGCTAG	GCATAGGAGA
30301	AAAAGGGGTC	TGTCTGCATT	TGCCCTTGGT	GGTCTCAAAT	TGGGGAGGGA
30351	AAGAAATGAA	CACCTACTGG	CTACCTTCTG	TGAGCCAGGC	ATCATGCAAG
30401	ACATCTGTAC	ATAATTTAAT	TCTCATAACC	CCATAAGATA	TTATTAGCAA
30451	TGTACAAGTG	AGGAAACTGA	GGCTCAGAGT	CATGAAGTAA	CTGGCCTTGG
30501	GTGACACAGA	TGGTAAATGG	CAGAGAAGGA	ATATGGATCC	AGGTCTTGAA
30551	AGAGAAAAATC	TCAACTGATT	ATCTTTTTTA	AAAAAATCAT	ATGTTCTCTG
30601	CTGACTCAAA	AGGTCTCTGT	GTGGATCTGG	GTTGACCCAC	TGAACTGACC
30651	ATCAGGGTTC	CATGCACTTT	GTATCTGCCC	AAGCCCTCAG	AACCCCTCAG
30701	TAATGTTTTG	GAAGATGAGT	TTTGGAGGTT	GTCTTAGGCT	ATAGCCTCAG
30751	CGTATGTAGG	CCTCTAGGTG	ATCTCCCTTA	ACCTGAGGAT	TTCAGCTCAA
30801	TTCACTCTGG	CTCCTCAGGA	CAGTGGGATG	ACTGGTTCAG	ACCTCAGCTT
30851	TACCACCTCC	CAGCTGGGTA	CTCTTCTACC	TACAGCCAGG	GCAGATTTTG
30901	ACTTTCACCT	GAAACTTCCA	AAAATTGAAA	GGTAGAAAAA	CAGCCTTGGC
30951	TTTGGGAAGA	ACGTATGATG	TCCATGGCCT	CTAAGCATCT	GAGGTGGGAC
31001	ATGTTTCGAGT	AGCACCTTAC	AGTTCCAAAG	TGTGTTCTGG	GTTCTTTGTT
31051	TAAAAGAACA	GAGACTGCTG	GGGAATTGAA	CAGTGTGAAG	TATATGAAGG
31101	AGGGAATTTG	TGCTATTTAA	CATTCAGTAC	TTGGGCTAAA	GGAGAAGCAT
31151	CACGAAGTGT	TAACACTCAA	AGGGTCTTGA	GCTGTGAGGG	CTCCAGCTTC
31201	CTTATTTTCA	CAGGTGAGAA	TCCTGAGGCT	CAGCTGTTGA	GATGTGCTGT
31251	CTCACTCCGG	TGACATAGTA	CAGTGGATGT	GGCTTTGCAG	CCAAGCACAC
31301	ATAGCTTCAC	ATTCCAGCTC	CATCAATTAT	GTATTGGGCA	GCTTTGCAGA
31351	ATGATTTGAC	TTTAACTCTG	CTTTTCAGTC	TTCTGTAAAA	CAGGGATAAT
31401	CCTGCTACCG	TAGGGTTGTC	AGGATTAGAG	ATAATATAAA	TAAGGTACCT
31451	CATATAGGAC	CTGGATTATG	GCTGGCATTG	AATAAATAGT	AGCTGTTAAT
31501	TGATAGCTAA	GCTAGAAGTC	TGAAGTCTAC	CATGGCAACT	TCTTAAGTGG
31551	TCTGAGAACC	CAGTTGTGTT	CTGTGGCAAA	ACACAGCTTA	GGGATCCATA
31601	CCCAGCCCTC	CTGTCAGCTG	TTACCTTCC	AGTTCTTCAG	AGACATGTGT
31651	GGCAGTGACT	TTGGCCACAT	AGCTGGCTGT	GCCCTTTAAA	GGCATTTCCTT
31701	GACACAGATA	TGTGGACTGG	TGACGTTGCT	CTCCAGCCAG	GTGTTCTTCC
31751	CAGCAGGCTG	GCCTGGCTGT	CTCCTGCATG	CCTGTACTTG	TTTGTCTCCC
31801	TGCTCCCTCT	CCTGGGCCTG	GCCAGAGCTA	CTTGCAGCAA	ACAAAAGCAG
31851	GATATTGGCA	ATGGAAGGA	GGGTGTGTTT	TGGTGTCTCC	ATGCCCTGCG
31901	GCGCACATAC	CATTGCAAGG	GCGTAACAGA	GCCCAGGCCT	GCATTTGGGT
31951	GCAAATAAGT	CTGCACACAG	AAGAAAAGAA	GGACCTGGTG	ACCAGGAGCC
32001	ATGGAACCCT	TGTGCTCCCC	TACCTGGGCT	ACTGGTCTTT	GCCACTCCTA
32051	CCATTTTCAG	TTTGGAATA	TTTGTTAAGG	CTTTGCTCTT	CCAGGTCCTT
32101	TGCTTGGTGC	TGAGTCTACC	AAGAGTAAAGT	GGGATGCTGT	TTTTGTCTCT
32151	AGGGAGCTAA	CAGTCTAGTG	AAGAAGAAAG	ATGGTTGCCC	AGGAACCTCT
32201	AAGTCAGAAG	GCAGGAGGCA	AGAAGGAAGC	CCCTGCTCCT	ACTGCCAGCC
32251	CTCTGTTGGG	CACCCCATAG	TTCTTCAGAA	CCACATTTAA	TCCTCACTGC
32301	AGGCCAGGCA	TAGTGGCTCA	CACCTGTAAT	CGCAGCACTT	CGGGAGGCCA
32351	AGGCGGGCAG	ATCACTTGAG	GTCGGGAGTT	CGAGACCAGC	CTCACCAACA
32401	TGGGGAAACC	CCGTCTCTAC	TAAAAATAGA	AAAATTAGCC	GGGTGTGGTG

FIGURE 3-11

32451	GCATGCGCCA	GTAATCCCAG	CTACTCAGGA	GGCTGAGGTG	GGAAAATCAC
32501	TTGAACTCGG	GAAGCAGAGG	TTGCAGTGAG	CCGAGATTGT	GCCACTGCAC
32551	TCCAGCCTGG	GCGATAAGAG	CAAAATTCCA	TCTCAAAAAA	AAAAAGAAAA
32601	AAGAAAAAAT	CCTCACTGCT	ACCTTGAAAG	TAGGTGATGA	CATTGCCATT
32651	TCACAAATGA	GAAGTGAAGG	GGCTAGCCCA	AGATCACTTA	GGTGGTAAAT
32701	GGTGGTGCTA	AGATTAGAAC	CTCAGATCAT	CTAGGGAAAA	ACACAGATAT
32751	GCACAGAGTT	AAGGGGACCC	AGGGTATTGT	TTGTCCTCTT	GTTTCACAGG
32801	TGGGGAAACA	ACCCAGAGAG	GGAAAGGGGC	TTGTCCAAGG	CAATTTAGCA
32851	CCCAAGAACT	TGAACCCATA	TCTCTCTCCT	CCTCATTTAG	AGCTCATCCC
32901	ACATGTATCT	TATATTGAGA	GGAGTGTGAG	CCACATACCA	AGAACAGTCT
32951	TCCCCTCTGC	CTCCAACCTC	ACTGTGCAGT	TTTGAGACAC	TTCACAGCCA
33001	TACTCTTCAT	GCCATACCCA	GCCCTTAAGA	CCCTGAAGTT	CCCCTTCCAT
33051	AAGACAAGTA	GGAAAAGCTA	TAGGGTAAAA	ATAGCCATCA	GTGTTTGTG
33101	AGCACCCAGG	AGGAATTGGG	CACTCCAGAA	AGATAAAGGG	ATTCTCAGGG
33151	ACTTGCTTCT	CTAGACTTCC	CTAGCTCAGC	TGCTTCAACT	CATTCTGCCC
33201	CCTCTTCTCT	ACCTCCCGCA	GTGCTCAGAA	GTAGTAGAAC	TCACTGTGGC
33251	CTCTCACCTT	GCATTGTTGA	GTTTTATTTA	GACTTTCTCT	TCCTCAACTC
33301	TTCATAGCT	CATGAAAGGT	GAAGTAGGGT	GCCCTGTGTA	TTTATCTTTT
33351	ATATCTGCAG	TGCTTAGCAA	GTTATAATAA	TGCACCTGCC	TGGCAAAAGG
33401	CTTCTCTCTA	TACATTAGCT	TATTTCTCTT	TCACATTGGC	TCTTTGTAGT
33451	AATAGGATGC	TATTAGTTAT	TTTCAATGAG	AGAAAGCTAC	TAAGAGAAGT
33501	TGTCCAGCTA	GTGACAGTAA	GTGGCTGATA	AAGTGAGCTG	CCATTACATT
33551	GTCATCATCT	TTAATAGAAG	TTAACACATA	CTGAGTTTCT	ACTATATTGG
33601	GTCTTTTTTT	TTTTTTTTTT	TTTTTTTTTT	GAGACGGAAT	CTTGCTCTGT
33651	TGTCCAGGCT	GGAACGCAGT	GGTGCAATTT	TGGGTACCA	CAACCTCCGC
33701	TTCCCAGGTT	CAAGCGATTG	TCCTGCCTCA	GCCTCCTGAG	TAGCTGGGAC
33751	TACCAGTGCA	CGCCACCACG	CCCGGCTAAT	TTTGTATTTT	TTAGTAGAGA
33801	CAGGGTTTCA	CCATGTTGGC	CAGGCTGGTC	TTGAACTCCT	GACCTTGTGA
33851	TCTGCCCGCC	TCAGCCTCCC	AAAGTGCTGG	GATTACAGGT	GTGAGCCACC
33901	GCGCCCTGCC	TATATTAGGA	CTTTTATATA	AGCTATCTCT	AGCTAGCTAG
33951	CTAGCTAGCT	ATAATGTTTT	TTGAGACAGA	GTCTGACTCT	GTCACCCAGG
34001	CTGGAGTGCA	GTGGCGTGAT	CTCGACTCAC	TGCAACCTCC	ACCTCCTGGG
34051	TTCCAGTGAT	TGCTCTGCCT	CAGCCTCCCG	AGTAGCTGGG	ATTATAGGTG
34101	CATGCCACCA	CGCCAGCTA	ATTTTTTTGTA	TTTTTGTAGT	ACCAGGTTTC
34151	ACCATGTTGG	CCAGGCTGGT	CTCGAACTCC	TGACTTCAAG	TGATCCACCC
34201	GCCTCGGCCT	CCCAAAGTGC	TGGGATTATA	AGCATAAGCC	ACTGTGCCCA
34251	GCTGCTCTCT	ATATTTTTAA	TACATATTAT	TTCCATTAA	TTTCACAGCA
34301	GTTCATTTTA	TAGATGAGGA	AACTAGGCCA	GAGAAGTAAA	ATATCTTGCC
34351	CAAGATGATG	TAAGTAGTAA	GTGGCAGGAT	CAAGATTCAA	ACCAAGCAAT
34401	GTTCAAACCT	CTTGGAAGCA	AGAATGTGGC	CACTGTGGAA	GGTGCAAGGC
34451	CTTGACAACA	AGAATAGGGA	AAAGAAGGAA	CTAGAAGGAA	AGAGATGGCA
34501	TGGGCTCAGC	AGGCCAGGGA	GCTCTTAGCT	GTGTGTGTTG	GGAAGCTCAG
34551	AAGGGAGGAA	GAGGTTGTCT	GTGCAGGTAA	GTCTGTAGAA	CACACCAGAC
34601	TTTTGAGAGG	TGGAGCTTCA	TAGCCAGGTC	ATTAGGGGAG	AAGGGAGCTA
34651	TAGATTTTTT	TTTTTTTTTT	TTTTTTTTTT	TTTTTTTTTAG	AGACGGGGTC
34701	TTACTATGTT	GCCCAGGCTG	GTCTTGAAC	CCTGGGCTCA	AGTGATCCTC
34751	CCACCTCAGC	CTCCCAAAGT	GCTGGGATTA	GAGGCATCAG	CCACCCCGCC
34801	CAGCGAGCTA	TGGATCTAAC	ATGTACATCT	TACACAGTGC	TAATAGAATG
34851	TTGGGTTTCT	TCCCAATAT	TTTATTTTGA	AAAAAAATTC	AAATATATAG
34901	AAAAGTTGAA	AAATGTAGTT	CAAAGAACAC	CTACATACCT	TTACATAGA
34951	TTCATGATTT	GTTAATGTTA	TGCCACTTTG	TATATATCTC	TCTCCCTCCT
35001	ATCTGTATAC	TTTTATTTAT	TTATTTTGTG	TGAACTATTT	CAGAGTAACT
35051	TAAAGGCATC	TTGATTTTAC	CCTTGAACAG	TTCAATATGT	TTCTGCTAAG
35101	AATTCTCCTA	TATAAGTCAG	ATATCATTAC	ATCTAAGAAA	ATTCACGGCA
35151	ATTTTACAAT	ATAATATTAT	AGTCCAAATC	CATATTTCTT	CAGTTGTTCC
35201	AAAAAATGTT	CATGGCTGTT	TCCTTTTTTA	ATCTAAATTT	GAATCCAAGT
35251	TTGAGGCATT	GATTTTGGTT	GCTGTGTCTC	TAGGGTTTTT	AAAATCTGTG
35301	CCTTTTCTTC	TCCCATGAC	TTTTTAGAAG	AGTCAAGACC	GGTTATTCTT
35351	ATAGAATAAC	CCACATTCTA	GATTTGCCTG	ATTAGTTTTT	TTACTACTAA

FIGURE 3-12

35401	CGTATTTTTG	GCAAGAACAT	TACATTGGTA	ACGCTGTTGG	TGATGGGTCA
35451	GTTTTGAAGA	GTGGAGATGA	TTAAACTGCT	TTTGTTTCATT	GAAGTATCTG
35501	TCAAGACCAG	AGATCCTTAA	CTGGTGCCAT	AAATAGGTTT	CAGAGAATCC
35551	TTTATATATA	CACCCTGTCC	CCCACCTAAA	TTATATACAC	ATCTTCTTTA
35601	TATATTCATT	TTTCTAGGGG	AGGCTTCTTG	GCTTTTATCA	AATTCTCAGA
35651	GGGCCCAAG	ACCCAAAGAG	GTTATGAAAC	ACTAGTCTGT	CCACTGAGGC
35701	AGGCAACACA	GAGCTGGTTT	CTGGGGCCTT	GTTCAGTCTG	AACCAGCTTC
35751	CCTTGGGGAG	ATAGCACAAAG	GCTGTAACTT	TGCCCCATCT	TGGCTTTGGA
35801	TCAAAGAGGA	CTGTCCATTT	TGTTGTCATA	CCTAGGAACC	AGGGACAGCT
35851	TATGTGGCCT	GGTTCAGGG	ATCCAGGAGA	ATTTCAAGTTC	TTGTCTTGCC
35901	TTTCAGGTGT	TCAGAATGCC	AGGATTCCCT	CACCAACTGG	TACTATGAGA
35951	AGGATGGGAA	GCTCTACTGC	CCCAAGGACT	ACTGGGGGAA	GTTTGGGGAG
36001	TTCTGTCATG	GGTGCTCCCT	GCTGATGACA	GGGCCTTTTA	TGGTGAGTGA
36051	ATCCCTTCAT	ATCTGCCCCT	CTTGGTCTTC	AGAGTCCATT	GACAGTGCTT
36101	CCAGTTCCTT	GTGGCCTGTT	AATCTTTTAG	TCTTTCCATC	AGCCAGGGCA
36151	TCTCCCTTTA	TTTATTCATT	CATTCAACTA	GCAGGTATCA	ATTGAGCACC
36201	TACTAAGTGA	AAGGTAAGAT	CCTTCCCTCA	AAGACTTAAT	AGTTGAACGT
36251	TGGGAGTGGG	AGGAGAGGCA	GGCAGAGAGG	AGACACAATA	TAGTTGGATA
36301	AGGACCTCCA	AGGAGAGTGT	TACAGGCTGA	GAGGAGGATA	TACTTAGGTT
36351	GTCTTTAGGG	AATCAGAAAA	GGAGACTCTG	GAATAGGCTG	GCAGAGAGAG
36401	GGGCTACCTC	CTATACCTGC	TCTGGACAAA	CGACTTTAAG	CATAGTGACA
36451	GATTTGCCAA	CCCTGTATTG	GAAGAACTGA	TCTTTTTTAG	TGGGGATGAT
36501	TACTTCTGGG	GATTTCTTCT	CATAACTGAG	ACCAAAACAG	TTTTGTGCAG
36551	TCTCAGAAAT	GACAGGAGGT	ACCAATCTGA	CACCTTCTTT	GGAAGCTCTA
36601	GGGCAGAGAG	TGAAAGAGTG	GATTTTGACG	GGGGCCTTGG	TTGGAGGTCA
36651	TTCACCACC	CCTGTCTCTA	CTCCAGCAAC	AGTGATAACT	CACCTTCTTC
36701	CTCCCTTTGT	ACACCTTCT	CCCCACCTGC	TCACAGGTGG	CTGGGGAGTT
36751	CAAGTACCAC	CCAGAGTGCT	TTGCCTGTAT	GAGCTGCAAG	GTGATCATTG
36801	AGGATGGGGA	TGCATATGCA	CTGGTGCAAG	ATGCCACCCT	CTACTGGTAA
36851	GATAGTGGTC	CTTTGTCTAT	CCTCTCCCAT	ATAAGAGTGG	CTGGCGGGGA
36901	GGGACAGTGG	CAGGGTGAGT	TGGGCAGAAG	GAGTGTTAGG	GTAGTCAGAG
36951	CATTGGATT	TTACACATGT	AGTGCTCTTA	ACCAGCTCTT	TAACCTGTAA
37001	GCAGAATGAT	TTACACATGT	CTTACCCTT	TTTCCTTACC	AACCTTGAAA
37051	ATGTCTTCAC	TCTGCCCTGC	AATCCTCCCA	GTGGGAGGCA	CTCTTCAAGG
37101	ACGATCCCAG	AACATTAAAG	TCAAAGACCC	CTTAGAGCTC	ACCCTGTCCA
37151	ACCACCTTGG	TTGATAAAAAG	AAGTCAGCCT	GGGGCCCATG	GAATAGAATA
37201	GTACAAGGGC	AAGGTTCTCA	TTGTGAGTCA	AAGGTAGAGT	GAAGAGAACC
37251	CAGACCATCT	CACCCCAACC	CAGGCCAGTG	TTTTTCCAAA	TATACCACTT
37301	GCTGCAGATC	TAGCTCAGCA	CCCCCAGTCC	CAGCCCACCC	TGAGAACCCA
37351	GGCTCCTCAT	TCTGAGCAGC	CAGCTAGAAT	CATGACAAAG	AGGGTGGTAG
37401	TGAGACTATG	GGTACTGTTG	CTTAAAGCCA	CATGGTGCAAG	TGGTTGCTGG
37451	GGGGCTTCTG	TGTGGGACTC	TAGCATCTTA	TTCCCCCTG	TGCCCTCTCC
37501	CCAGTGGGAA	GTGCCACAAT	GAGGTGGTGC	TGGCACCCAT	GTTTGAGAGA
37551	CTCTCCACAG	AGTCTGTTCA	GGAGCAGCTG	CCCTACTCTG	TCACGCTCAT
37601	CTCCATGCCG	GCCACCACTG	AAGGCAGGCG	GGGCTTCTCC	GTGTCCGTGG
37651	AGAGTGCCCTG	CTCCAACCTAC	GCCACCACTG	TGCAAGTGAA	AGAGTAAGTA
37701	TTTTGAGAAC	CCTTCAGCAG	GGGTTCTTGA	GCAGAGTCTG	TAAATGGGCC
37751	TCAGAGGGCT	TAGACCTCCA	AAGTCTCATG	CAGAACTCCC	TTTATTCTCA
37801	TCTCATATCT	TTCTCCTGGA	CCCCACTATG	CTGTAACCGT	ACCTGGGCCT
37851	TGGCACTTAC	TGTTCTCTCT	GCCCAGGCTA	CTTCCTACCC	GATACTTAAG
37901	GCAAGAATCA	CTCACCTTTC	AGGTGTCAGG	TTTCAGGTCA	TGTTTGCTCT
37951	TTGAAATCAT	CTGGCTTGAT	TATGTGTATT	AGTTGTTTAT	CTTCTATCCC
38001	CTCCACTAGA	ATGTAAATTC	CAGAAGAAAC	TTGCTGTCTT	ATTCAGTGCT
38051	GCATGCCAG	GGCTTGAAG	AGTACCTGGC	ATATAGTAGG	AGTTGATTGA
38101	TTATTATTTT	GTCAGTCGAG	AGAATGAATG	GAGAAAATGT	GGTCCATGGC
38151	CCAAAAGAAG	TTAAGACCCT	ATCCTAGATT	CAGGCCAGAG	ACCAGATGGA
38201	GAAAGAGTCT	GTGTCTATCT	AATACCAGTA	ATGTCTGACC	TCTGGCCGCT
38251	TACCATGTAA	ATATTGATTG	TGTATCTACC	ATGTGTTGGA	CACTAGGCTA
38301	GTGCTTGAC	AGCAGGTGAA	AGATACTAGA	GTTTGGGAAG	TCAGGAGGAG

FIGURE 3-13

38351	CTAAGGTCTG	TTCTACAACC	TTATTAGATG	AAGAGGAGAG	GGAATTGTGT
38401	TCAGGGCAGA	GGGAGAAGCA	TTTCTCCAAA	AGTAGGAGTC	TTAATCATGT
38451	CTGATGTAGG	TTGAGTGTGG	CCAGAAAAGG	GGCTGTTAAG	TATAGAGGGC
38501	CTGGATTATG	AAAATCCAGC	AGATCCATTG	AGAGTTTAAG	CAGCAAGGTG
38551	TTGTGACCAA	GTTAACATTT	TAGAAGGATC	ACTGGTATGG	AGGTTGGATT
38601	GGAGAGGGGA	AAGCCTAAAG	GTATAGAGAC	TAGTTAGGAA	GCTATTGTAG
38651	GCTGGGCATG	GTGGTTCATG	CCTGTAATCT	CAGCACTTTG	GGAGGCTGAG
38701	GTGGGAGGAT	TGCTTGAGGC	CAGGAGTTGA	AGACCAACCT	GGCCAACATA
38751	GCAAGACCCC	GTCTCTGTTT	TTCTTAATTA	AAAGAAAAGT	CCAGACGTAG
38801	ACATAGTGGC	TCACGCCTGT	AATGCCAGCA	CTTTGGGAGG	CCAAGGTGGG
38851	CAGATTGCTT	GAGGTCAAGA	GTTTGGGATT	AGGCCAGGCG	CAGTGGCTCA
38901	CGCCTGTAAT	CCCAGCACTT	TGGGAGGCCG	AGGTGGGCGG	ATCACAAGGT
38951	CAGGAGATCA	AGACCATCCT	GGCTAACACA	ATGAAACCCC	GTCTCTACTA
39001	AAAGTACAAA	AATTAGCCGG	GCATGGTGGC	GGACGCCTGT	AGTCCCAGCT
39051	ACTCGGGAGG	CTGAGGCAGG	AGAATGGCGT	GAACCTAGGA	GGCGGAGCTT
39101	GCTGTGAGCA	GAGATCACGC	CACTGCACTC	CAGCCTGAGC	GACAGAGCGA
39151	GACTCCATCT	CAAAAAAAAA	AAAGAGTTTG	GGATTAGCCT	GGCCAACATG
39201	GCAAAACCCC	ATCTCTACAA	AAAGTACAAA	AAAATTAGCT	GGGTATGGTG
39251	GTGCGCGCCT	GTAATCCCAG	TTACTCAGGA	GGCTGAGGCA	TGAGAATTGC
39301	TTGAGCCTGG	GAGGTGGAGG	TTGCAGTGAG	CCCAGATCAT	GCCACTGCAC
39351	TCCAGCCTGG	ATGACAGAGT	AAGATGCCAT	CTCAAATAAA	AATTFAAAAAAC
39401	AAAGTTTAAA	AAAAAAATAG	AAGCTATTAC	CGTGATCCAG	GTAAGAGATG
39451	TGAATAACTA	CAATGATGGA	AAGAAGGCAG	AGTTCTTAGA	GATGGGAGTA
39501	GGAGAGATGA	GGGAACTCCA	GATTGGGAAG	ATGATGTTCA	AGTTTCTGGC
39551	TTAGGCCACA	GGGTGAGTGG	CAATTCCCTT	CACTGAGATG	GGGCATCCTG
39601	GAAAAGGTGT	TGCCTTTCTG	TGTGGGTATC	CTGGGCCCCC	TAGGGGCCAC
39651	TGGTGGCCTG	GGACCTGGTA	AACCTTCCCT	GCACAAGCAG	AATTGGTCAA
39701	GCAGGTTTTT	AGGACATCTT	TACCCTGCCT	CAACTCTTGT	CTGGCCCAGG
39751	GTCAACCGGA	TGCACATCAG	TCCCAACAAT	CGAAACGCCA	TCCACCCTGG
39801	GGACCGCATC	CTGGAGATCA	ATGGGACCCC	CGTCCGCACA	CTTCGAGTGG
39851	AGGAGGTAGA	GTGTGTGTCT	AATCTGTCTT	GTGAGGGTGG	GACATGGAAC
39901	AGATCCTCTG	GGAAATCAGG	CTGTAGCCTT	TACCTTTTCC	TACCCCCAGC
39951	CCATCTCTTT	GTCTTAGCAT	TGAGCCTGTG	ACCACTGGTG	ACCTATTTCA
40001	GCCTAACAGG	TTCCCAAGGT	AGCAGGGATG	GTTGATGGAC	GGGAGAGCTG
40051	ACAGGATGCC	AGGCAGAGGG	CACTGTGAGG	CCACTGGCAG	CTAAAGGCCA
40101	CCATTAGACA	AGTTGAGCAC	TGGCCACACT	GTGCCTGAGT	CATCTGGGTT
40151	GGCCATGGGT	GGCCTGGGAT	GGGGCAGCCT	GTGGGAGCTT	TATACTGCTC
40201	TTGGCCACAG	GTGGAGGATG	CAATTAGCCA	GACGAGCCAG	ACACTTCAGC
40251	TGTTGATTGA	ACATGACCCC	GTCTCCCAAC	GCCTGGACCA	GCTGCGGCTG
40301	GAGGCCCGGC	TCGCTCCTCA	CATGCAGAAT	GCCGGACACC	CCCACGCCCT
40351	CAGCACCTTG	GACACCAAGG	AGAATCTGGA	GGGGACACTG	AGGAGACGTT
40401	CCCTAAGGTG	CCACCTCCCA	CCCTGGCTCT	GTTCTGTCTT	ATGTCTGTCT
40451	CTCGGATGAA	GCTGAGCTGG	CTTTCAGAAG	CCTGCAGAGT	TAGGAAAGGA
40501	ACCAGCTGGC	CAGGGACAGA	CTATGAGGAT	TGTGCTGACC	CAGCTGCCCC
40551	TGTGGGGATC	ACAGTTTACA	GCCAGAGCCT	GTGCGGACCC	AGCTGTCTGC
40601	CAGGTTTCCT	TAGAAACCTG	AGAGTCAGTC	TCTGTCCACT	GAACTCCTAA
40651	GCTGGACAGG	AGGCAGTGAT	GCTAAACCTT	GAAGGGCAAC	ATGGCCTATG
40701	GAGAAAGCAT	GGAGCTCAGA	GCCTGGAGTA	CGGGCACAGA	TAGGATTGAA
40751	TAAATTGTGT	AGAAAGACTT	TGAAAACAAT	AAAGCAAAAG	ATGAATGAAC
40801	GTTTTTTTTT	GACTTGAGGG	ACCAACAACC	CCCAAACCCC	AGATTCTGCC
40851	AGGTCCATGG	GGAAGGAGAA	GTTGCCTTGA	GTGGAAGCCC	CAAGTAGGGA
40901	GACTTACAGA	AAAGAAGTCA	AGAGCACTGG	CTCCCAGGCA	GAAATACTGA
40951	TACCCTACTG	GGGCTTCAGG	CTGAGCTCCT	CCCTTCACAA	ATCACTTCAT
41001	CTCTCTGAGC	CTGTTTCTGC	ATCTGTGACA	TAAGATGGTA	AGATAAAGGT
41051	GGCTGTCTCA	CCAATTATGT	AAGGATTAAA	TGTGGAAAAG	GACATAAAGT
41101	TGTATATGGC	TGCCATAGGG	ACAGTGTTCA	GTAACAGTGA	CACATTCTTA
41151	GTATCACTAA	GAATCAGGTT	CTTGGCCAGG	CACCGTGGCT	CATGCCTGTA
41201	ATCCCAACAC	TCTGGGAGGC	CTAGGTCGGA	GGATGGCTTG	AACACAGGAG
41251	TTTGAGACCA	GCCTGAGCAA	CATAGTGAGA	CACTGTCTCT	ACAAAAAATA

FIGURE 3-14

41301	AATAATAATA	ATAATTGTTT	TTAATTAGAT	GGGCAGGGCA	CTGTGGCTCA
41351	CACCTGTAAT	CCCAGCACTT	TGGGAGGCCA	AGGCCGGAGG	ATTGCTTGAG
41401	GCCAGGAGTT	CAGGAGCAGC	CTGGGCCACA	TTCTGTCTC	TACAAAGAAT
41451	AAAAAAGTTA	ACTGGGCATG	GTGGCACATG	CCTGTAATCC	CAGCTACTCA
41501	AGAGGCTGAG	GAGGAGGATT	GCCTGAGCCC	AGGAGTTCAA	GACTGCAGTG
41551	AGCCTTGATC	ACACCACTGT	ACTACAGCTT	GGGCAACAGA	GTGAGACCTT
41601	GTCTCCAAAA	AAAAAAGTTT	GTCTCTCTCT	ATCCACTCTC	CTCACCAAAC
41651	AAACTGAGTA	AGTTAGAGCC	CTCTCAGCTG	GCATGTGTTG	GAAACAGTGC
41701	CCTCTCATTA	AAGTGTGCCC	CTCACTCCCA	TTGCCTCTTG	GCCTTGGTCA
41751	GTATGATGAA	ATTAGTGGGA	GGCAGGGCAA	CAGAGGGCAG	GGAAGAGCTA
41801	GAAATCCATG	GCCTGGA AAA	GGGAAGATTT	GGGAGTGGCC	AGGTATCTGT
41851	AGAGCCACCA	TGCAGAGGAG	GGGGGCAGCT	AGCCTTGTGT	GCTCTGGTGG
41901	GCATGGTCAG	CAGGAGGCAG	AGCAAAAGGA	CAAGGGTAAG	TAAACCTGTA
41951	GGTCGGGACA	AGCCAAGAGC	CATCCAGCGT	CAGTCTCTCT	TGGGTAGCCC
42001	AAGTAAAGCA	GGAGCATACC	CCAGAGAGAA	AGTTCGCAGG	GCTGTTTACC
42051	TGCAGTGCTG	TGGACTTCAA	CCTTCTTGTT	CCTTCTTCAG	TAAGTGAAAA
42101	TAACAGTCAT	TGACCATGAC	TATTATCGAC	CGCTTTTGAA	AATGTAAACA
42151	TAGTGACTTT	ATTGCTGTAA	AAATCATACG	TGTTTATCAT	CTTAAATTC
42201	AGGAACATG	GACAGGTACA	AAGATGTGCA	AAATATCATC	CAAAATCCCA
42251	TTTGCTGGCC	AGGCACGGTG	GCTCACGCCT	GTAATCCAG	CACATTGGGA
42301	GGCCGAGGCG	GGCAAAATCAC	TTGAGGTCAG	GAGTTTGAGA	CCAGCCTGGC
42351	CAACATGGTG	AAACCCTATC	TCTACTAAAA	ATACAATAAT	TAGGCTGGGC
42401	GCAGTGGCTC	ACGCCTATAA	TCCCAGCACT	TTGGGAGGCC	GAGGTGGGCG
42451	AATCACAAGG	TCAGGAGTTT	GAGACTAGCC	TGGCCAATAT	GGTGAAACCC
42501	CATCTCTACT	AAAAATACAA	AAATTAGGGC	CGGGTGTGGT	GGCTCAGCCC
42551	TGTAATCCCA	GCACTTAGGG	AGGCCGAGAC	AGATGGATCG	CGAGATCAGG
42601	AGTTCGAGAC	CAACCTAGCC	AACATGGTGA	AACCCCATCT	CTACTAAAAA
42651	AATACAAAAA	TTATTCCGTT	GTGGTGGCAC	ACGCCTGTAA	TCCCAGCTAC
42701	TTGGGAGGCT	GAGGCAGGAG	AATCTCTTGA	ACCTGGGAGG	CAGAGGTTGC
42751	AGTGAGTGGA	GATCCC GCCG	TTGCACTCCA	GCCTGGGCGA	CAGAGTGAGA
42801	CTCCATCAAA	AAAAAAAAAA	AAAAAAAAAA	AAATTAGCCG	GGCGTGGTGG
42851	CGTGACCTA	TACTCCCAGC	TACTTGGGAG	GCTGAGGCAG	GAGAATCGCT
42901	TGAACCTGGA	AGGCGGAGGT	CGCAGTGAGC	CGAGATCGTG	CCATTGCACT
42951	TCAGCCTGGG	CGACAGAGCG	AGACTCTGTC	TCAAAAATAA	TAATAATAAC
43001	AATAACTAGC	CGGGCCTGGT	GGCACATGCC	TGTAGTCCCA	GTTACTCAGG
43051	AGGCCGAGGC	ATGAGACTCA	GGTGAAGTAG	GGAGACAGAG	GTTGCAGTGA
43101	GCCAAGATCA	CACCACTGCA	CTCCAGCCTG	GTTGACAGAG	CGAGACTCTG
43151	TCTCAAAAAA	AAAAAAATCC	CATTTGCTCA	TTTTTTGGAT	ACTAGTATAA
43201	CTATCACTCT	AAACCAGTTA	GTACTTAAAT	CAAGCAGATA	TGGGAGATGG
43251	TGAATTACCA	TCTACAGTGT	TGTCATATAT	GTCACATACT	GAGCATTATC
43301	AGCTAGTAGA	ATCTAGTTAA	TTGTTCTATG	TGTGATGTAT	GCAGAGTTCC
43351	CATTTTGAAT	GTGTTTTTAC	TATGCTTAAA	TAAATGACTG	ATGTCAGCAA
43401	CCCCAAAATG	ATACATCTGA	TGTAAGAGCC	CCTGTTCCCC	AATAATAACA
43451	TCTAAACTAT	AGACATTGGA	ATGAACAGGT	GCCCCCTAAGT	TTCTCCCTCT
43501	CAGGGTTTTCT	TGGCCGGTCT	CTGAGGACTA	CACATCCCTA	CTCCCGTCTT
43551	TCCTCATCTT	CAGGCGCAGT	AACAGTATCT	CCAAGTCCCC	TGGCCCCCAGC
43601	TCCCCAAAGG	AGCCCCTGCT	GTTCAGCCGT	GACATCAGCC	GCTCAGAATC
43651	CCTTCGTTGT	TCCAGCAGCT	ATTCACAGCA	GATCTTCCGG	CCCTGTGACC
43701	TAATCCATGG	GGAGGTCCTG	GGGAAGGGCT	TCTTTGGGCA	GGCTATCAAG
43751	GTGAGCGCAG	GCAACAATTG	CTTTGCTCTT	CTGCCCCCAG	TCCCTCTGTC
43801	ACTGTCTTTC	GGGGATTCTT	CATCACTTGG	CCCCACCCCA	CACCATGCAG
43851	GATGCCAGGC	CTCCTTCCTG	GCTTTGGGTG	TTGGTGTGAG	AGGTATCCTT
43901	CACCCCCACC	CAGGCCACCT	AAGGTCAATG	TTGCTGTTAC	AGTGAGCTTG
43951	TGGACCTGGA	GATCCAGGTT	GGGTTGAGCT	GTGCCTGTGG	CCCTCCTGCC
44001	TCCAGTCAGT	GGGTGTTTGT	TAGGTGCCTG	CAGACCTCAG	TACCGGGCAT
44051	GCTACAAGGA	GCACACAGGG	GAATGGCTCC	TGCCTCCCTG	GTGAACAGTC
44101	TCAGGGACTA	ACCTCTCTCT	TTCTCTCTCT	CTCCTCCTCT	TCTGCTGAGA
44151	ACTGGGAGGG	GGGGTCAGGT	AAGACGTGTG	TCTCAGCTTG	GGGGCAGCAG
44201	GGCTGGAGAG	CTCACCCCCG	ATCCACCCAG	CTCCCTGGTG	CATGTCCTTG

FIGURE 3-15

44251	GCACTGACCT	TCCTGCCCCC	AGACTTCTGT	TCACTCAGGA	GACTCACTTC
44301	TATGCCAAAT	GACCAGAGCC	CCTGCTTGGC	TTGGCAGCAT	CCCCTCCTGC
44351	CTTCTTCCCC	ACTTCCCTTT	TCTGGGTTCT	TGCCTGTCCT	CTGTGCATGC
44401	CCAGCTCTCC	AGGAAAGAGG	GTTTGCTTCC	GTGTGAGTCC	CATGTTGCTC
44451	CACGCTGCAT	CTTCCACACA	TGAACTCTGT	CATTCTGACC	CGGCTCAGTG
44501	TGCCCTCCAA	GGGATGGGAT	GGCCAGCTGC	ATAGATTTTC	TCAAACAGTT
44551	CTCCAGAACT	TCCTCTGGTC	TCAGCACCAT	TAACAGTCAC	CCTCCCTGTA
44601	GGTGACACAC	AAAGCCACGG	GCAAAGTGAT	GGTCATGAAA	GAGTTAATTC
44651	GATGTGATGA	GGAGACCCAG	AAAACTTTTT	TGACTGAGGT	AAGAAGATGG
44701	AGGGGGCCCC	GGAGGTTGGT	GTCACCATTG	GAAGAGAGAA	GACCTTACAA
44751	ATAATGGCTT	CAAGAGAAAA	TACAGTTTGG	AATTACTGTC	TTAAAGACTA
44801	AGCAGAAAAG	AGCCCTAGAG	GAATATCCCA	CTCCCTCTAA	ATTACAGCGT
44851	AATTATTTGT	TCAATGAACA	CTTACTAAAA	GCAACACAAA	CAGGGTACAA
44901	GGGATGCAGT	AACAAAAGAT	ACAGGGTTCA	GAAGAGCTCT	CAGGTTATGA
44951	GGATGATGGA	CATGAAAACA	CTCCAATTTA	GTACAACCTA	ATGTTATAAT
45001	CCTCACCTGA	ACGCCCTGCT	AAGGGAGCCT	GGAGGGGAGC	TCCCTGAGCA
45051	CTCACACTCC	TTGGGCATTT	ACAGTTTTCA	CTACCCCTCC	CAAGTTACTT
45101	CATGGAGTAA	CTTAAGTTGG	GGACACCTGT	GGTCTGGGTA	TTGCCCTCCA
45151	AGCCACTTGG	CCACTCCCAC	CCCAGTTCTC	CCAATGCAGT	TCCAAGGGTA
45201	AGGCCTATGA	AGCCATCTCC	ATCTATATGG	TGGTGGTCTT	CCCTCATCCT
45251	GATCTTAGTG	CCCTGTCTATA	TCACAAGATA	GGAGGTAGGA	GATAACAGGTG
45301	GTAACACTTG	TCAAGCTGAT	TCCTTGAGAG	GAAGAGGTAA	GGAAGACAGT
45351	GAGAAGTTAA	CCACCAGCTT	TCCTTGCTTT	CCCCACCCCC	CAGGTGAAAG
45401	TGATGCGCAG	CCTGGACCAC	CCCAATGTGC	TCAAGTTCAT	TGGTGTGCTG
45451	TACAAGGATA	AGAAGCTGAA	CCTGCTGACA	GAGTACATTG	AGGGGGGCAC
45501	ACTGAAGGAC	TTTCTGCGCA	GTATGGTGAG	CACACCACCC	CATAGTCTCC
45551	AGGAGCCTTG	GTGGGTTGTC	AGACACCTAT	GCTATCACTA	CCCTAGGAGC
45601	TTAAAGGGCA	GAGGGGCCCT	GCTTTGCCTC	CAAAGGACCA	TGCTGGGTGG
45651	GACTGAGCAT	ACATAGGGAG	GCTTCACTGG	GAGACCACAT	TGACCCATGG
45701	GGCCTGGACC	ACGAGTGGGA	CAGGGCTCAA	CAGCCTCTGA	AAATCATTCC
45751	CCATTCTGCA	GGATCCGTTT	CCCTGGCAGC	AGAAGGTCAG	GTTTGCCAAA
45801	GGAATCGCCT	CCGGAATGGT	GAGTCCCACC	AACAAACCTG	CCAGCAGGGC
45851	GAGAGTAGGG	AGAGGTGTGA	GAATTGTGGG	CTTCACTGGA	AGGTAGAGAC
45901	CCCTTCCTAT	GCAACTTGTG	TGGGCTGGGT	CAGCAGCTAT	TCATTGAGTT
45951	TGTCTGTGTC	ACTGAAACTG	ACCCCAGCCA	ACTGTTCTCA	GTTTACAGCC
46001	CTGTTTTCAA	AGAATTACAC	ATCTCTAAAG	GCAAACAGGG	CACGGACAAG
46051	GCAAACCTGA	GAGGCAAAC	GTAGCCTGAG	ATGGCCTGGG	CTTGCCATCA
46101	CAGGTATTCA	GGTGCTGAGG	GCCCTTAGAC	CAACTAGAGC	ACCTCACTGC
46151	CTAGGAAATC	AATGAAGGGG	AAATGAGTTC	TAGCGGAGCC	CTGAAGGATC
46201	AGAATTGGAT	AAAGTTCTTA	TTGGCAGAGA	GGCACCAGGA	TTGAAGTGAC
46251	AGGAGCAAAG	ACCTGGGAGG	AAAGAGGAGA	AAATCATCTA	TTTCACCTGG
46301	AAACAAATGA	TTCCAAGCAT	AGAAATAATA	ACAGCTGACA	AGTACTGAGT
46351	GCCCTCTATA	TGCTAGGCAC	TGGGCTGAGG	GATTAACATG	CATGTGCATG
46401	TTTATTCCTC	ATGACAACCT	TGGTTTTCCAG	ATAAGCTGGA	CTGGAAAGGG
46451	ACAGAGCTGG	GATCCTGGGC	TAATCAGTCT	GGTCGCCAAG	CCTGAGACTT
46501	TAGCCACTGC	CCTTCACATG	GGGGTCCATG	AAAATAGTAG	TAGTCTGGAA
46551	CAGTTTGGGG	GTACATCAAG	GTCGCTGTGT	TTTAAGCTAT	GGAGTCTGGA
46601	CTATAGGAGA	CAAATGTAAA	AGAGTTTTTT	GGTTGACTGG	CTTTTTGGTT
46651	TTTTTGTGTT	TTTGTGTTGT	TGTTTGTGTT	TTTGTGTTGT	TTTTCTGTGT
46701	TCTGGGGCTT	GAATCAGGAA	GGAGGTTTTT	TTGTTGTGTT	TGTTTTGAGA
46751	AAGGATATTG	CTCTGTTGCC	CAGACTGGAG	TGCAGTGGCA	CGATCATGGC
46801	TCACTACAGC	TTCGACCTCC	TGGGCTCAAG	CAATCCTCCT	GCCTTAGCCT
46851	CCCAAGTAGC	TGGACTACAG	GTGTGTACCA	CCACACCTAA	TTTTTTGAAT
46901	TTTTTTTTCT	TTTTTTTTTT	TTTTTTTTTT	GGTAGAGACA	GTTTCTCACT
46951	TTGTGCCCCA	GGCCTGAATC	TCAAACCTCT	GGGCTCAAGC	ATTCCTCCTG
47001	CCTCGCCCTC	CCAAAGTGTT	GGGATTACAG	TTGTGAGCCA	CCATGCCCCG
47051	CAGGAAAAGA	TTTTTAAGCA	AGAAAGCTTA	AGAGCTGTGG	TTTTTCCAAA
47101	ATGAGTCTGG	GCTGGCACAG	TGGCTCATGC	CTGTAATCCC	AGCACTTTTT
47151	TGGGAGGCCG	AGGTGAGTGG	ATCACTTGAG	GTCAGGAGTT	TGAGACCAGC

FIGURE 3-16

47201	CTGGCCAACT	GGTGAACCC	CTGTTTCTAC	TAAAGAAAA	AATGCAAAAA
47251	TTAGCTGGGC	GTGGTGGTGC	ACGCCTGTAG	TCCCAGCTAC	TCAGGAGGCC
47301	GAGGCAGGAG	AATAGCTTGA	ACCTGGGAGG	CAGAAGTTGC	AGTGAGCCAA
47351	GATCACACCA	CTGCATTCCA	GCCTGGGTGA	CAGAGTGAGA	CTTCATCTCA
47401	AAAAAAAAAA	AAAAGAGAGA	CTGATATGGT	TAGTACATTG	GGGTGGAATG
47451	CGGAGGGTCC	AGGGAATGGA	GCCCTGCATA	GGGGGCTAAT	GAAACATTTT
47501	AGATTCTGA	ATTAAGGTAG	TGGCTGTGGG	GACAGGAGCC	TGGGAGGCAG
47551	GGTGGAGTCA	GAATGGAGAG	ACTGGTTGGC	AATGAGGGAA	CAGGAGGAGG
47601	AGGAGGAGGA	GTTACGAGTG	GCTTGAGGTG	TCACCTACCA	GACATTTGGG
47651	GGATGGGGGA	TAGCTGTGAT	TGTTGAGCAA	CTGGTTTGGG	AAGAGCTAGC
47701	ATTGATCCCT	GCTGTTCTGT	GCTAGCAGAA	CCTATCAGCA	TCTTCTGGGC
47751	AGGAACTGG	CTCCATGAGA	CTGGCTTAGG	GAGAGGCTGC	TAGTCACCTA
47801	ATCTGCAGAG	AAGGGGCAGC	TGGAGCTGTG	GGACAGAAGA	GGCATCCATG
47851	TAGCTGGTGG	GGGTGTCTCA	GCTTGTGAAG	AGGAGATGGC	TTTGAGCAGG
47901	GCTGACACTG	AAAAGGCTGG	AAGAAAAAAA	CAGACACACA	AGAGTCTCAG
47951	GATCAGGTAG	CATAGGAAAG	TTGTGGACAG	TCTTTGAGGA	GCACTCCCTC
48001	AGGCAGGCAG	GCAGGCAGGT	CATGAGCTAT	AGCGATTTCAG	GAAGAGCTCC
48051	CTGGGTGTGT	GAGCAGCTCC	AGGAGCCTAA	GGGATGAAAG	TAGTATTGCA
48101	GGGGGCTGGA	GAGCAAGGAG	TGGCTCCTTC	TACATTTGCA	AGGGAAGGAG
48151	AAAGGAAGTT	GCTCCTGAGA	GTGGTAAGAG	TCAGTGGTGG	AGGCCTGGAG
48201	AGGAGACATA	ACAAACAAAT	TTGTTGACAA	ACATTTTGGT	AGGAAGGGGG
48251	AGAGCTTAAA	GTTTAGACAG	TGGGGAAGGT	GGAGTCTTAG	AGGAGGTGAA
48301	TGTCTGAAAG	ACAGAGCTAG	CTGGAGCAAG	AAGTCACTTC	TCTGTTGCAG
48351	GCAGGAAGGA	TCCAAAGTGG	CTCAAGCCAG	AGATTGGGAG	AGTGGGGAGG
48401	AGGGAGCAGC	CTGGATCTAA	GTAAAAATGGG	TAGAGGTGGA	GGGGGTGCTG
48451	CAACGGCCAG	GGTTTTCTGA	AGTTGGGGAC	ATTAGGAGAG	AGCTGTGAGG
48501	GCTTTGGCCA	GCCACTGTGC	TAGTGATTGG	TGAACCAAAG	GATGGGCAGG
48551	AGATGGCAGC	AGGGAAGCAG	AGGAAGTCCA	GGCTTCCTGT	TGGTATTGGG
48601	ACAAGGGAGA	GGCCATAGGA	GGCCCTGGCC	CTGTTGTCCA	GGTTGGGTTC
48651	TGAAGCTGGG	TGGGCATGGC	CTGGTAGGAG	AGCATCTATG	GCGCCCAATT
48701	CCAGATTTCAG	GGTCTAGTTG	ATTTGCTGGC	CCTGTAGCCT	CAGCTCATGC
48751	TTCTGTTCCA	GGCCTATTTG	CACTCTATGT	GCATCATCCA	CCGGGATCTG
48801	AACTCGCACA	ACTGCCTCAT	CAAGTTGGTA	TGTCCCACTG	CTCTGGGCCT
48851	GGCCTCCAGG	GTCCATCCT	TCCTGGCTTC	CTTGTCACAA	AGGAGGCTGA
48901	CTTGTCCTCT	CTTGCTAGAG	GGCAGAGGTG	TTGCCTAGGA	GCTCETATCT
48951	TTCCCTTCT	GCTTCTTCCA	ATGCCCTTCT	CTGTCCTCTG	GGAGCTCCGA
49001	GACACACACA	GACATAATTT	CACCTTCTCT	CATTAGCAAC	CTTTGAAATA
49051	ATTTGATTAG	AAGGGACTTC	AGAAGTTTGT	TGACTATATG	TAGAAAACCC
49101	TGTCATTTTA	CCTGCTTTTG	CCCCATAGTA	GTCTTGTAAG	ACAGTTCATT
49151	GCTGACCCCA	TTTTACAGTG	GTGGCACCTG	AAGCCTCAGC	CTGAGGCCAC
49201	CGAGCTAGTA	AATTTACAGG	GACCACTTTG	AGACCAGCAT	TCCTCCCACT
49251	GCCCCCTCAGC	TGTGGTGGTT	ACAATGTTGT	TTGTCTTACT	GACTTGCTAT
49301	CTGGCTTCCT	GGGTGTCTAC	CGGCTGGCCC	TGGCTCTGCC	CTCTAGACCC
49351	ACACCACGCA	ATCTTCATTC	CTTTCCCA	TGACTGCCCT	GTAGCTATTC
49401	AAAGAGCTTG	TCTCCCCCAA	GTCTCCCCAT	CTACTGCCTC	CACCTTGCTC
49451	TTTTCTGTCT	TATCCTGGTT	CTAGCCACTG	CCTGAAATCA	TTTTAGGAAT
49501	AAGACAGGAC	AGGGAAAAAC	AAAAGCAACC	CCCTGTCCCA	CCTCTGAGTT
49551	CCACTCTCCA	AGTCCCTGAG	CCTCACCTCC	AGGGCTCCAG	TGGCTCTGCC
49601	ATGAACCCAC	TGTGGGCTGG	GAGTCTGCTG	TGCACAGATA	CCAGACCCTC
49651	AGAAACACAA	ATGCCAAGTG	TGTCTGTTTT	TTTGTTTTGT	TTTGTTTTGT
49701	TTTTTAGATG	GAGTCTCATT	CTGTTTCCCA	GGCTGGAGTG	CAGTGGTGCA
49751	ATCTTGCTCT	ACTGCAGCCT	CTACCTCCCG	GGTTCTAGTG	ATTGTTCTGC
49801	TTAGCCTCC	CAGTAGCTAG	GACTACAGGC	GTGTGCCACC	ACGCCAGCT
49851	AATTTTTTTT	TTTTTTTTTT	TGTATTTTTA	GTAAGACAG	GGTTTTGCCA
49901	TGTTGGCCAG	GCTGGTCTTG	AACTCCTGAC	CTCAGGTGAT	TCACCCGCT
49951	TGGCCTCCCA	AAGTTCTGGG	ATTACAGGTG	GAAGCCACCG	TGCCTGGCCT
50001	GAGTGTGTCT	ATTTGATAGA	GCTTTCTGCT	CTGATTCTCC	CTTGCTATAC
50051	ACCTTTTCTC	CCCTTCTCAG	TGGCTTCTCT	TGCCTATGCT	TCCTCCCAAG
50101	GGCCAGGTTT	GAGAACATCC	CCATGAAGTC	CTGACCTGTC	TTTTATCCTA

FIGURE 3-17

50151	CCAGGACAAG	ACTGTGGTGG	TGGCAGACTT	TGGGCTGTCA	CGGCTCATAG
50201	TGGAAGAGAG	GAAAAGGGCC	CCCATGGAGA	AGGCCACCAC	CAAGAAACGC
50251	ACCTTGCGCA	AGAACGACCG	CAAGAAGCGC	TACACGGTGG	TGGGAAACCC
50301	CTACTGGATG	GCCCCTGAGA	TGCTGAACGG	TGAGTCCTGA	AGCCCTGGAG
50351	GGGACACCCG	CAGAGGGAGG	ACAGATGCTG	CCCTTGCAATC	AGAGCCCTGG
50401	GAATTCCAGG	GGAGGCCTGT	GAAGCGTAGG	ACCGGATACC	CAGAGCTGAG
50451	GATATTTTTC	CCTTGCCAGG	TGGGGCCTCA	CGATTTAGCT	CCTGAGCTCA
50501	GGGGGCTGGG	AACTGATCAG	TGTCCCATCA	TGGGGGATAA	GGTGAGTTCT
50551	GACTGTGGCA	TTTGTGCCTC	AGGGATCGCT	AAGAGCTCAG	GCTATTGTCC
50601	CAGCTTTAGC	CTTCTCTCTC	CATGGTGAGA	ACTGAAGTGT	GGTGCCCTCT
50651	GGTGATAAT	GCTCAAACCA	ACCAGAGATG	CTGTTTGGGA	TTCTTGAAAT
50701	CAGGGTTGTG	AGGCCTCAGA	AATGGTCTGA	ATACAATCCA	TTTTGGAGTC
50751	TGAGGCCAG	AGAAGTTCAG	TGAATTGCCT	AGGAGCATAC	AGCTGCCTAA
50801	TGGCAGAGGC	TAGATGAACC	CTAGTCTGGT	TCTTTTCCAC	TTTAACGTGC
50851	AGTTTCATCC	TAGGCAGTGT	TATGTTATAA	GGGCTCTCCA	AGGCAGTTCA
50901	CCTACGGCTG	AGGAAGGACT	ATTTTCAGGT	GGTGTCTGCG	CAGGACAGCC
50951	TGTGGGGTGT	CCCTACAGAA	CCTGTTCTAG	CCCTAGTTCT	TAGCTGTGGC
51001	TTAGATTGAC	CCTAGACCCA	GTGCAGAGCA	GGTAAGGGAT	GTAAACTTAA
51051	CAGTGTGCTC	TCCTGTGTTT	CCCAAGGAAA	GAGCTATGAT	GAGACGGTGG
51101	ATATCTTCTC	CTTTGGGATC	GTTCTCTGTG	AGGTGAGCTC	TGGCACCAAG
51151	GCCATGCCCG	AGGCAGCAGG	CCTAGCAGCT	CTGCCCTCCC	TCCGAACTGG
51201	GGCATCTCCT	CCTAGGGATG	ACTAGCTTGA	CTAAAATCAA	CATGGGTGTA
51251	GGGTTTTATG	GTTTATAACG	CATCTGCACA	TCCTTGCCAC	GTTCTGTGTT
51301	CATTGGTCTT	AAGAGAAGGA	CTGGCAGGGT	TTTTTTTGTT	TAGATGGAGC
51351	CTCACTTCGT	TGCCCAGGCT	GGAGTGCAGT	GGCACAATCT	GGGCTCACTG
51401	CAACCTCTGC	CTTCTGGGTT	CAAGTGATTG	TCCTGCCTCA	GCCTCCCAAG
51451	TAGCTGGGAC	TACCGGCACA	CACCACCATG	CCCGGCTAAT	TTTTGTATTT
51501	TTAGTAGAGA	CAGGGTTTCA	CCATGTTGGC	CAGGCTGGTC	TTGAACTCCG
51551	GACCTCAGGT	GATCCGCTCG	CCTCAGCCTC	TAAAAGTGCT	GGAATTAATA
51601	GGCGTGAGCT	ACCTCGCCCG	GCCAGGTTTT	TTTTTTTTTT	TTTTTAGTTG
51651	AGGAAACTGA	GGCTTGGAAG	AGGGCAGTGG	CTTGACATG	GTCGATAAGG
51701	GGCAGATGAG	ACTCAGAATT	CCAGAAGGAA	GGGCAAGAGA	CTGTTTATGT
51751	GGCTGTCTAG	TAGCTCTTGG	GGCCAAATGT	AGCCCTTCTC	AGTTCCCTTC
51801	AAGTAGAAGT	AGCCACTCTA	GGAAAGTGTA	GCCCTGTGCC	AGGTACCACG
51851	TGGACAGAGT	GAGGAATCTT	GGAAAGATTC	CTACCTTTAG	GAGTTTAGTC
51901	AGGTGACAGC	ATATCTCAGC	GAATCAAACA	CACACACATT	CAAAGCCTTC
51951	TGTAATTCCT	ACAAAGTTGT	GAGGGGTAGA	GGAGAGGAGA	GACAAGGGAT
52001	GGTTAGGATA	ATGAAGGAAT	GTTTTGTTTT	TGTTTTTGTT	TTTGAGATGG
52051	AGTTTCACTC	TGTCACCCAG	GCTGGAGTGC	AGAGGTGCAA	TCTTGGCTCA
52101	CTGCAGCCTC	CGCCTCCCAG	GTTCAAGCAA	TCCTCCTGCC	TCAGCCTCCC
52151	AAGTAGCTGG	GACTACAGGT	GTGCGCCACC	ACGCCTGGCT	AATTTTTGTA
52201	TTTTCACTAG	AGACAGGGTT	TCGCCATATT	GGCCAGGCTG	GTCTCAAATG
52251	CCTGACCTCA	GGTGATACAC	CCGCTTCAGC	CTCCCAAAGT	GCTGAGATTA
52301	CAGGCATGAG	CTACCGTGCC	TGGCCATGAA	GGAAGATTTG	TTTTTAAAAA
52351	TTGTTTTCTT	TAATATTAAT	TGAACACCTC	TGTTTCAAGC	ACTGGGCTGG
52401	TGCCAGAGGG	TTTCAGACAT	GAATCAGATC	CAGCACCTCA	TAGAGCCTTA
52451	ATCTGGCACA	CACACACAGC	CACAAGGAGA	CACAGACAAG	GCAGGGTAGG
52501	ATGAGTGGAA	GCTAGGAGCA	GATGCTGATT	TGGAACACTT	GGCTTCTGCA
52551	GTGAAGCCCC	TTCTTAGTCC	TCTTCAGTAA	CCCAGCTCTC	AGTGGATACA
52601	GGTCTGGATT	AGTAAGATTT	GGAGAGATGA	TTGGGGATTG	GGGAGAGCTC
52651	TCTAACCTAT	TTTACCACCT	CCTCTTCTGC	CATTCTTCCT	GTCCACATCC
52701	CCAGCATCCC	TTTCCCTTGC	CAAGTATCTG	TGGCCTCTGT	AGTCCTTTGT
52751	AAACAGCTGT	CTTCTTACCC	TACAGATCAT	TGGGCAGGTG	TATGCAGATC
52801	CTGACTGCCT	TCCCCGAACA	CTGGACTTTG	GCCTCAACGT	GAAGCTTTTC
52851	TGGGAGAAGT	TTGTTCCAC	AGATTGTCCC	CCGGCCTTCT	TCCCGCTGGC
52901	CGCCATCTGC	TCAGACTTGG	AGCCTGAGAG	CAGGTTGGTA	TCCTGCCTTT
52951	TTCTCCACGC	TCACAGGGTC	CTGGGACGTT	TGCCTCTGTC	TAAGGCCACC
53001	CCTGAGCCCT	CTGCAAGCAC	AGGGGTGAGA	GAAGCCTTGA	GGTCAAGAAT
53051	GTGGCTGTCA	ACCCCTGAGC	CATCTGACAA	CACATATGTA	CAGGTTGGAG

FIGURE 3-18

53101	AAGAGAGAGG	TAAAGACATA	GCAGCAAGTA	ATCTGGATAG	GACACAGAAA
53151	CACAGCCATT	AAAAGAAAGT	TTAAAAGAAG	GAAATTCACC	CAAACCATTT
53201	GAATACAGTA	AGTGTATTCA	TCTTTCGATA	TTCCCCTGTC	CATATCTACA
53251	CATATACTTT	TTTTTATAGT	AAATAGTTCT	GTATTTTGCC	CTGCATTTCC
53301	CTTGTGTTTA	CTATCCAGTC	TTCCTGTTTA	TCATTTTGT	CGACAACATG
53351	AAATTCTATT	GAGAGACTGT	CTGAACATAT	TGTAATGTAG	ATGTTTCAGG
53401	TTTTCCAGTT	TCTCTTTACA	ATAGGTATTT	AACTACAGTG	AGCAGTTTAA
53451	TGCATTTAGC	TAATTTCTCC	TTTGAGGAAG	TATTTTCAAA	ATTACCTTTA
53501	TTCTTCTCAG	GTAATAATTT	CATTATTACC	AAAGTTACCC	TAGGTCTTTT
53551	CAAGTGTGTG	GTTAAAAAAC	GAGAATCTGG	CTGGGCGCGA	TGGCTCACAC
53601	CTGTAATCCC	AGCACTTTGG	GAGGCTGAGG	CTGGTGGATC	ACCTGAGGTC
53651	TGGAGTTCTGA	GACCAGCCTG	GCCAACATGG	TGAAACCCCA	TCTCTACTAA
53701	AAATACAAAA	CTTAGCCAGG	CATGGTGGCA	GGTGCCTGTA	ACCCCAGCTA
53751	CTTGGGAGGC	TGAGGCAGGA	GAATTGCTTG	AACCCAGGGG	CGGAGGTTGC
53801	AGTGAGCCGA	TATCACGCCA	TTGCACTCCA	GCCTCGGCAA	CAAGAGTGAA
53851	ACTCTGTCTC	AAAAATGGGG	TTCTTTTCTT	GCCATCAAAA	ATCATGTTTC
53901	TTTTAAAAAC	AAGTTCAAAC	ATTACCAAAG	TTTATAGCAC	AGGAAATACG
53951	TCTTCTGTAA	TCTCCCTTAA	CCAATATATC	CCTCAACATT	CTCCTCACCC
54001	CCAATCCAC	CCTCCCAGGA	TAACCAGTTG	GGACATAATC	TTTATTTAAA
54051	AATGGTTTCC	GATAGAGAA	AGCGCTTCGG	CGGGCGGAGC	CCCGGCGGCG
54101	GCCGCAGGGG	ACAAAGGGCG	GGCGGATCGG	CGGGGAGGGG	GCGGGGCGCG
54151	ACCAGGCCAG	GCCCGGGGGC	TCCGCATGCT	GCAGCTGCCT	CTCGGGCGCC
54201	CCCGCGCGCG	CCCTCGCCGC	GGAGCCGGCG	AGCTAACCTG	AGCCAGCCGG
54251	CGGGCGTCAC	GGAGGCGGCG	GCACAAGGAG	GGGCCCCAEG	CGCGCACGTG
54301	GCCCCGAGG	CCGCCGTGGC	GGACAGCGGC	ACCGCGGGGG	GCGCGGCGTT
54351	GGCGGCCCCG	GCCCCGGCCC	CCAGGCCAGG	CAGTGGCGGC	CAAGGACCAC
54401	GCATCTACTT	TCAGAGCCCC	CCCCGGGGCC	GCAGGAGAGG	GCCCCGGGCTG
54451	GGCGGATGAT	GAGGGCCCCAG	TGAGGCGCCA	AGGGAAGGTC	ACCATCAAGT
54501	ATGACCCCAA	GGAGCTACGG	AAGCACCTCA	ACCTAGAGGA	GTGGATCCTG
54551	GAGCAGCTCA	CGCGCCTCTA	CGACTGCCAG	GAAGAGGAGA	TCTCAGAACT
54601	AGAGATTGAC	GTGGATGAGC	TCCTGGACAT	GGAGAGTGAC	GATGCCTGGG
54651	CTTCCAGGGT	CAAGGAGCTG	CTGGTTGACT	GTTACAAACC	CACAGAGGCC
54701	TTCATCTCTG	CCCTGTCTGA	CAAGATCCGG	GCCATGCAGA	AGCTGAGCAC
54751	ACCCCAAGAAG	AAGTGAGGGT	CCCCGACCCA	GGCGAACGGT	GGCTCCCATA
54801	GGACAATCGC	TACCCCCCGA	CCTCGTAGCA	ACAGCAATAC	CGGGGGACCC
54851	TGCGGCCAGG	CCTGGTTCCA	TGAGCAGGGC	TCCTCGTGCC	CCTGGCCCAG
54901	GGGTCTCTTC	CCCTGCCCCC	TCAGTTTTCC	ACTTTTGGAT	TTTTTTATTG
54951	TTATTAAACT	GATGGGACTT	TGTGTTTTTA	TATTGACTCT	GCGGCACGGG
55001	CCCTTTAATA	AAGCGAGGTA	GGGTACGCCT	TTGGTGCAGC	TCAAAAAAAA
55051	AAAAAAAAT	GATTTCCAGC	GGTCCACATT	AGAGTTGAAA	TTTTCTGGTG
55101	GGAGAATCTA	TACCTTGTTT	CTTTATAGGC	CAAGGACCGC	AGTCCTTCAG
55151	TAACACCACT	GTAAGGCTT	GAGGAGAAAT	TGTGAAGCTA	CACAGTATTT
55201	GTTTTCTAAT	ACCTCTTGTC	ATTCTAAATA	TCTTTAATTT	ATTAAAAAAT
55251	ATATATATAC	AGTATTGAAT	GCCTACTGTG	TGCTAGGTAC	AGTTCTAAAC
55301	ACTTGGGTTA	CAGCAGCGAA	CAAAATAAAG	GTGCTTACCC	TCATAGAACA
55351	TAGATTCTAG	CATGGTATCT	ACTGTATCAT	ACAGTAGATA	CAATAAGTAA
55401	ACTATATTGA	ATATTAGAAT	GTGGCAGATG	CTATGGAAAA	AGAGTCAAGA
55451	CAAGTAAAGA	CGATTGTTCA	GGGTACCACT	TGCAATTTTA	AATATGGTCG
55501	TCAGAGCAGG	CCTCACTGAG	GTGACATGAC	ATTTAAGCAT	AAACATGGAG
55551	GAGGAGGAGT	AAGCCTGAGC	TGTCTTAGGC	TTCCGGGGCA	GCCAAGCCAT
55601	TTCCGTGGCA	CTAGGAGCCT	GGTGTTTCCG	ATTCCACCTT	TGATAACTGC
55651	ATTTTCTCTA	AGATATGGGA	GGGAAGTTTT	TCTCCTATTG	TTTTTAAGTA
55701	TTAACTCCAG	CTAGTCCAGC	CTTGTTATAG	TGTTACCTAA	TCTTTATAGC
55751	AAATATATGA	GGTACCGGTA	ACATTATGCC	CATTTCTCAC	AGAGGCACTA
55801	CTAGGTGAAG	GAGTTTGCTT	GACGTTATAC	AACCAGGAAG	TAGCTGAGCC
55851	TAGATCCCTT	CCACCCACCC	CATGGCCCTG	CTCATGTTCC	ACCTGCCTCT
55901	AATTTACCTC	TTTTCTTCT	AGACCAGCAT	TCTCGAAATT	GGAGGACTCC
55951	TTTGAGGCCC	TCTCCCTGTA	CCTGGGGGAG	CTGGGCATCC	CGCTGCCTGC
56001	AGAGCTGGAG	GAGTTGGACC	ACACTGTGAG	CATGCAGTAC	GGCCTGACCC

FIGURE 3-19

56051	GGGACTCACC	TCCCTAGCCC	TGGCCCAGCC	CCCTGCAGGG	GGGTGTTCTA
56101	CAGCCAGCAT	TGCCCCCTCTG	TGCCCCATTG	CTGCTGTGAG	CAGGGCCGTC
56151	CGGGCTTCCT	GTGGATTGGC	GGAATGTTTA	GAAGCAGAAC	AAGCCATTCC
56201	TATTACCTCC	CCAGGAGGCA	AGTGGGCGCA	GCACCAGGGA	AATGTATCTC
56251	CACAGGTTCT	GGGGCCTAGT	TACTGTCTGT	AAATCCAATA	CTTGCCTGAA
56301	AGCTGTGAAG	AAGAAAAAAA	CCCCTGGCCT	TTGGGCCAGG	AGGAATCTGT
56351	TACTCGAATC	CACCCAGGAA	CTCCCTGGCA	GTGGATTGTG	GGAGGCTCTT
56401	GCTTACACTA	ATCAGCGTGA	CCTGGACCTG	CTGGGCAGGA	TCCCAGGGTG
56451	AACCTGCCTG	TGAACTCTGA	AGTCACTAGT	CCAGCTGGGT	GCAGGAGGAC
56501	TTCAAGTGTG	TGGACGAAAG	AAAGACTGAT	GGCTCAAAGG	GTGTGAAAAA
56551	GTCAGTGATG	CTCCCCCTTT	CTACTCCAGA	TCCTGTCCTT	CCTGGAGCAA
56601	GGTTGAGGGA	GTAGGTTTTG	AAGAGTCCCT	TAATATGTGG	TGGAACAGGC
56651	CAGGAGTTAG	AGAAAGGGCT	GGCTTCTGTT	TACCTGCTCA	CTGGCTCTAG
56701	CCAGCCCAGG	GACCACATCA	ATGTGAGAGG	AAGCCTCCAC	CTCATGTTTT
56751	CAAACTTAAT	ACTGGAGACT	GGCTGAGAAC	TTACGGACAA	CATCCTTTCT
56801	GTCTGAAACA	AACAGTCACA	AGCACAGGAA	GAGGCTGGGG	GACTAGAAAG
56851	AGGCCCTGCC	CTCTAGAAAG	CTCAGATCTT	GGCTTCTGTT	ACTCATACTC
56901	GGGTGGGCTC	CTTAGTCAGA	TGCCTAAAAC	ATTTTGCCTA	AAGCTCGATG
56951	GGTTCTGGAG	GACAGTGTGG	CTTGTACAG	GCCTAGAGTC	TGAGGGAGGG
57001	GAGTGGGAGT	CTCAGCAATC	TCTTGGTCTT	GGCTTCATGG	CAACCACTGC
57051	TCACCCTTCA	ACATGCCTGG	TTTAGGCAGC	AGCTTGGGCT	GGGAAGAGGT
57101	GGTGGCAGAG	TCTCAAAGCT	GAGATGCTGA	GAGAGATAGC	TCCCTGAGCT
57151	GGGCCATCTG	ACTTCTACCT	CCCATGTTTG	CTCTCCCAAC	TCATTAGCTC
57201	CTGGGCAGCA	TCCTCCTGAG	CCACATGTGC	AGGTACTGGA	AAACCTCCAT
57251	CTTGGCTCCC	AGAGCTCTAG	GAACCTTCA	TCACAAC TAG	ATTTGCCTCT
57301	TCTAAGTGTC	TATGAGCTTG	CACCATATTT	AATAAATTGG	GAATGGGTTT
57351	GGGGTATTAA	TGCAATGTGT	GGTGGTTGTA	TTGGAGCAGG	GGGAATTGAT
57401	AAAGGAGAGT	GGTTGCTGTT	AATATTATCT	TATCTATTGG	GTGGTATGTG
57451	AAATATTGTA	CATAGACCTG	ATGAGTTGTG	GGACCAGATG	TCATCTCTGG
57501	TCAGAGTTTA	CTTGCTATAT	AGACTGTACT	TATGTGTGAA	GTTTGCAAGC
57551	TTGCTTTAGG	GCTGAGCCCT	GGACTCCCAG	CAGCAGCACA	GTTTCAACAT
57601	GTGTGGGCTG	TTGTTTCTCG	GCTGTCCCCA	GCAAGTGTAG	GAGTGGTGGG
57651	CCTGAACTGG	GCCATTGATC	AGACTAAATA	AATTAAGCAG	TTAACATAAC
57701	TGGCAATATG	GAGAGTGAAA	ACATGATTGG	CTCAGGGACA	TAAATGTAGA
57751	GGGTCTGCTA	GCCACCTTCT	GGCCTAGCCC	ACACAAACTC	CCCATAGCAG
57801	AGAGTTTTCA	TGCACCCAAG	TCTAAAACCC	TCAAGCAGAC	ACCCATCTGC
57851	TCTAGAGAAT	ATGTACATCC	CACCTGAGGC	AGCCCCCTCC	TTGCAGCAGG
57901	TGTGACTGAC	TATGACCTTT	TCCTGGCCTG	GCTCTCACAT	GCCAGCTGAG
57951	TCATTCCTTA	GGAGCCCTAC	CCTTTCATCC	TCTCTATATG	AATACTTCCA
58001	TAGCCTGGGT	ATCCTGGCTT	GCTTTCCTCA	GTGCTGGGTG	CCACCTTTGC
58051	AATGGGAAGA	AATGAATGCA	AGTCACCCCA	CCCCTTGTGT	TTCTTTACAA
58101	GTGCTTGAGA	GGAGAAGACC	AGTTTCTTCT	TGCTTCTGCA	TGTGGGGGAT
58151	GTCGTAGAAG	AGTGACCATT	GGGAAGGACA	ATGCTATCTG	GTTAGTGGGG
58201	CCTTGGGCAC	AATATAAATC	TGTAAACCCA	AAGGTGTTTT	CTCCCAGGCA
58251	CTCTCAAAGC	TTGAAGAATC	CAACTTAAGG	ACAGAATATG	GTTCCCGAAA
58301	AAAAC TGATG	ATCTGGAGTA	CGCATTGCTG	GCAGAACCAC	AGAGCAATGG
58351	CTGGGCATGG	GCAGAGGTCA	TCTGGGTGTT	CCTGAGGCTG	ATAACCTGTG
58401	GCTGAAATCC	CTTGCTAAAA	GTCCAGGAGA	CACCTCTGTT	GGTATCTTTT
58451	CTTCTGGAGT	CATAGTAGTC	ACCTTGCAGG	GAACCTCCTC	AGCCCAGGGC
58501	TGCTGCAGGC	AGCCCAGTGA	CCCTTCCTCC	TCTGCAGTTA	TTCCCCCTTT
58551	GGCTGCTGCA	GCACCACCCC	CGTCACCCAC	CACCCAACCC	CTGCCGCACT
58601	CCAGCCTTTA	ACAAGGGCTG	TCTAGATATT	CATTTTAACT	ACCTCCACCT
58651	TGGAAACAAT	TGCTGAAGGG	GAGAGGATTT	GCAATGACCA	ACCACCTTGT
58701	TGGGACGCCT	GCACACCTGT	CTTTCCTGCT	TCAACCTGAA	AGATTCTCTG
58751	TGATGATAAT	CTGGACACAG	AAGCCGGGCA	CGGTGGCTCT	AGCCTGTAAT
58801	CTCAGCACTT	TGGGAGGCCT	CAGCAGGTGG	ATCACCTGAG	ATCAAGAGTT
58851	TGAGAACAGC	CTGACCAACA	TGGTGAAACC	CCGTCTCTAC	TAAAAATACA
58901	AAAATTAGCC	AGGTGTGGTG	GCACATACCT	GTAATCCAG	CTACTCTGGA
58951	GGCTGAGGCA	GGAGAATCGC	TTGAACCCAC	AAGGCAGAGG	TTGCAGTGAG

FIGURE 3-20

59001 GCGAGATCAT GCCATTGCAC TCCAGCCTGT GCAACAAGAG CCAAACCTCA
 59051 TCTCAAAAAA AAAAA (SEQ ID NO:3)

FEATURES:

Start: 3000
 Exon: 3000-3044
 Intron: 3045-45393
 Exon: 45394-45525
 Intron: 45526-45761
 Exon: 45762-45818
 Intron: 45819-50154
 Exon: 50155-50329
 Intron: 50330-51076
 Exon: 51077-51132
 Intron: 51133-52775
 Exon: 52776-52933
 Intron: 52934-55922
 Exon: 55923-56064
 Stop: 56065

CHROMOSOME MAP POSITION:

Chromosome 22

ALLELIC VARIANTS (SNPs):

DNA	Position	Major	Minor	Domain
	941	A	T	Beyond ORF(5')
	2612	G	A	Beyond ORF(5')
	5080	G	A	Intron
	6599	-	A C	Intron
	6983	C	G	Intron
	9885	A	-	Intron
	12538	G	T	Intron
	17707	T	C	Intron
	18219	-	A	Intron
	19670	C	T	Intron
	21153	G	T	Intron
	24566	C	-	Intron
	26604	G	A	Intron
	27255	C	G	Intron
	27399	T	C	Intron
	28088	G	A	Intron
	28734	G	A	Intron
	29246	-	T	Intron
	29490	G	A	Intron
	29934	T	C	Intron
	34480	A	G	Intron
	38812	T	C	Intron
	40731	C	G	Intron
	41303	T	A	Intron
	41305	-	A	Intron
	41457	G	C	Intron
	43168	A	- T	Intron
	43357	T	G	Intron
	45664	T	C	Intron
	47549	A	C	Intron

FIGURE 3-21

47908	C	A	Intron
52267	C	A	Intron
54654	T	C	Intron
54679	C	G	Intron
54693	A	C	Intron
54706	T	C	Intron
54712	T	C	Intron
54799	T	C	Intron
54819	G	A	Intron
55499	C	T	Intron
56825	C	A	Beyond ORF(3')
58871	T	A	Beyond ORF(3')

Context:

DNA
Position
941

GAGTAAGTGGGTGGTCAGGTTACAGACTTAATTTTGGGTAAAAAGTAAAAACAAGAAAC
AAGGTGTGGCTCTAAAATAATGAGATGTGCTGGGGTGGGGCATGGCAGCTCATAAACTG
ACCCTGAAAGCTCTTACATGTAAGAGTTCAAAAATATTTCCAAAACCTGGAAGATTAT
TTGGATGTTTGTGTTTCAATTAATAATCTCTCACTAATTCATTGTCTTGCCACTGTCGTAA
CCCAACCTGGGATTGGTTTGAAGTGAGTCTCTCAGACTTTCTGCCTTGGAGTTTGTGAGAG
[A,T]
GATGGCATACTCTGTGACCACTGTCAACCTAAAACCAAAAAGGCCCTCTTGACAAGGAG
TCTGAGGATTTTAGACCCAGGAAGAATGAGTGATGGGCATATATATATCCTATTACTGAG
GCATGAGAAGAGTGGAATGGGTGGGTGAGGTGGTGTTTAAGGCCTCTTGCCAGCTTGT
TTAACTCTTCTCTGGGGAACGAGGGGGACAACCTGTGTACATTGGCTGCTCCAGAATGATG
TTGAGCAATCTGAAGTGCCAGGAGCTGTGCTTGTCTATTTCATGGCCCCTGTGCCTGTG

2612

TGAGTTGGAACAGTTTGATACCAAAACCATCCCCCGCCCCCAACCCCAGCCTAGGGT
CCGTGGAAAAATTGGCCCCTGGTGCCAAAAAGGTTGAGGACTGCTGATCTAGAGGACCAA
TTTATTCAATGTTGGTTGAGTAAATGAGCTCTTGGATTAGGTGATGGAAAAATCTGAAAA
AACAGGGCTTTTGAAGGAATAGGAAAAAGGCAGTAACATGTTTAACCCAGAGAGAAGTTTCT
GGCTGTTGGCTGGGAATAGTCATAGGAAGGGCTGACACTGAAAAGAAGGAGATTGTGTTT
[G,A]
TTTCTTCTCTCAGAGCTATAAGCAAAGGCTGAAAGTTCTAGAAAAGGCAAGTTTGT
TCAGTAGAAAAAAGGATAATCAGAACCATTTTGTAGAAAATGGAATGAGACTACTTTTGTG
GCCATGAGTTCTTGTCCCTGGAGAGATGAGCAGAGGTTGGACAAGTGCTTACCAGAGAT
CTGTGTGAGGCAGAACTGTGCATCTAGCAGAGCATTGGCCTAACCTTTCAAATGAGAT
GCTGTTAACTCAGTCTTATTCTACATGGTAGGAATCCTGTCCCTTTGCCTCCTGCTACTT

5080

ACAACGTAAATAGTTGAAATTTGTTGGTGGAAGAAGAGCAGTCCACTCCAGAGGCTGG
ATGGGCATGCCTGGCCCCAAGGTCTGAAGTGGTAGGGCTGTGCCTATATCCTGAGAATG
AGATAGACTAGGCAGGCACCTTGTGCTGTAGATTCCAGCTCCTGCACATAGCTCTTGTG
TAAACATCCCTGTGCTTATACCAAGTAATTGAGTTGACCTTTAAACACTTGCCCTCTTCC
CTGGGAACCATATAGGGGATTGGCCTGGAGACGTCTGGCCTCTGGAAGAGTTGGAAGCA
[G,A]
CCATCATTATTATCCTTTCTTTTCTAGCTATAACTCAGAGCTCTCAAGTCTTTTCTGTGGA
TCTTATTGCCTTGGTTCTTGGCCCTTTTACTCCCAGGGAAGTTGATTCTGTCTTTTCTGT
TCCATTTAGTATGACAGGAGCAGAGAATGTGAGAGCTGTAAGGGACCTTATAGTTAAAGC
CTTTGGCTGGTCCCTTCATTTTATAGCTGGGACTAATAAGTAACGTCAAACCCCAATGAG
TTCACAGATTGGGTCTCGCCTTGGCATGTAACCCATATGTTTCATATTCTGTGCTTTTTCC

6599

CTGTAATCCTAGCACTCTGGGAGGCCGAGGCAGAAGGATCGCTTGAGCCCATGAGCCCAG
GAGTTTGAGACCAGCCTGGCCAACATGGCAAACTCCACCTCTACAAAAAATACAAAAAT
ATTAGCCAGGCGTGATGGCACACACCTGTAGTCCCAGCTACTTGGGAAGCTGAGGAGCGA
TGATTACCTGAGCCCAGGGATATCAAGGCTGTAGTGAGCTGTGATCATGCCACTGTACTC
CATCCAGCTGGGGACAGAGTGAAACCCCTGTCTCAAAACAAAACAAATGAAAAAAAAA
[- ,A,C]

FIGURE 3-22

CCTTAATAATCAGTAACTGTCACTTTATATTATGTTGTGAGTGTGTGTCTATATACACCT
ATATGTATACATTTCTCTTATTACACATTCACTTGGTGATCTGATGTGGAGCCCCAGGGAT
TAAGGGCAACTTTGAACTACCCCTGACACAATCAAGCCAAATATCATTCCCGTGGAGGAAG
TAGAGTATCTAGGTTCTGTCTCCTAGTTGCAGCTTTACCTTGAGGACAGAGACTCTAATC
CAGCTGTGCTGAAGGAGCACATCTCTGACTTCTGAGCTTTCCCCTGGTAAATTCAAACCT

6983

CACATTCATTGGTGATCTGATGTGGAGCCCCAGGGATTAAGGGCAACTTTGAACTACCCCT
GACACAATCAAGCCAAATATCATTCCCGTGGAGGAAGTAGAGTATCTAGGTTCTGTCTCC
TAGTTGCAGCTTTACCTTGAGGACAGAGACTCTAATCCAGCTGTGCTGAAGGAGCACATC
TCCTGACTTCTGAGCTTTCCCCTGGTAAATTCAAACCTGGATGTACGGCGCCCTCAGATA
GAGCCTGGTAATTTGCCCTGGGAGAGTGACTGTCTTTTGATCTAATTTGACTTTTGCC
[C, G]
CAGTTGGAGGAAAATCTTCAGGGCTAGGAAGGATTGTATTTGTCTGACCCCAGAGATAAC
CTGGGTTTTGAGGAACATGGGGCATCAACCTGAATGGTCTTGTAAGATCTCTCCACGCC
AGCTTGCCAGTGTCTCTGATGAATTTAGAGTACCTGAGTAGTGCAGGCCTGCTGGGAG
GAGGACTCTCCCTCTGTGCTACTCAGAGAAATTCATTCTCAAGGCCCCCTCCAGCCTT
GCTCTTACCCAGCTGGGCTACAGTTACAATAAAGGAAATGACTTTTCTCTCCCCTTCCC

9885

GGCGTGCCACCACACCTTGCCATTTTTTTTTATTTTAAAGTAGAAACAAGGTCTTATTAAT
ACTATGTTGGCCAGGCTGGTCTTGAACCTCAGCGATCCTCTGCCCCAGCCTCCCAAAGT
GCTTGGGATTACGGAAGTAAGCCACTGTGCCTGGCCAGTGCAACCCCCATTTTATACTAA
AACAGGAAGGCCAGAAAGGTTTGGAGTAACCTGTCCAGGGTCACACAGATGATATTTGA
ACTCAGGTCTCCCTGGCTCCCAAGAGAGTCTGCTTTCCACTAGGACTCCAGGAGAAAAA
[A, -]
AAAAAAAAAACAGTAGACTTGGAGACAGAAAATCTGATTTGAGTCTTAGTTGAGCTAGG
CTAACTGTGTAACCTGTGGGCAAGTTCCTTAGCCCCCTGTGAGCCTCAGTTTCTTATCTGTA
AAATGTCATAAAAGAAATCCATCTCATGGAGTAGTTGTGATGATCAAGGACTCTGAAAC
ATTAGAATGGTTTAAATGTGAAGGATTAGCAGCAGCACATGGCAACATTGTGCATCTTATA
TTAACTATCCAAATATATCAAGCGTCATTTGCTATATATAAAAGTCATCAAATTAGGCAC

12538

ACTTGGGAGGCTGAGGCAGGAGAATCACTTGAACCTGGGAGGCAGAGGTTGCAGTGAGCC
CAGATCAGCCACTGCACTCCAGCCTGGTGACAGAGTAAGACTCCATCTCAAAAAAAAAA
AAAAAAAAAAAAAATTCCTTAATTTGGCCCTACAGTAGAGCCCTCCGTAATGTGGCCTCTCT
CCACATCTCCACAACCTCCTGCTCCCTGCACTTCAGCCTCACCTCTCTTCTGGACAGGCC
CTCCTTCTGACAAGGGCTTTGTTTATTCTGCTCCCTCTGCTAGAATGCCCCCTTACTCT
[G, T]
TTCACTTAACTCCTGCTTATCGTTTATAGATCTTTACCTGGATGGCTCAGAGAAATATAGAA
GTAATTCCTCACCTGAAAAATAGGTTAGGTCCCTGTTTATGTTTTCATAGACCTTTCC
TTTGAGGCTTTTTTAAAAAAGTAGTTTTAATCTCACATTTATTCATGTGATCATCTCCT
TAATGATATCTAAGACCTCTAATAGAACAATTTGGTCATGGACTGTGGGGTTTTTGCCC
CTCATTGTGTGAGCACTGAGCATATTGTTGGCATAGGAGGGATATTGTTGAATGAATTG

17707

GTAGTGGGTGCTCAGAGTGTTTGCTGGGTGAATGATGTATTTGTTGAACGACTCTTTGGA
CACTTGAATAAAGTCCATCCAGTATGCACCATACCCTCTTCGCTCTACAATATTCTT
TTAGGCAAGAGCTTATCTTTTGAGGTGATAAGATAAGCTCAAACCTTATGTAGACTAAGAC
CTCAGTCTGTAAATGTATCCCTAAGTCTTAAACCATCAAAACCAGGGCCTCAAGGAATG
GCATGCCTTCTGCAACTGTAGCAACCTGCTGTGCTTATTTTGCCGTGTTTTTCATTTTTC
[T, C]
CCCCAAAGCTAGAGTCCCTTCTCCCATGGGCAGTGCTGGAAGTGTGCTAACAAATCTTT
CTCCATACTGCTTACGATTACAAAAAAAACCCTCAGCATCTCATGCCAGACTTGAGTTAA
GGTTGTTTTCTTTTGTGTGTGAGCTGTATTCTGGTCATGACTTCTGATGATGCCCTATA
GAGATTTTGCTGAGATCAGAGGTGCTCCACTGCCATCAGTAGCACTGACTCTTGAGAA
GCACCGTTTCTGAAGTTGGCTAATGTATCCCTCACGTTTGTGTTTGAATTTGTTTT

18219

TGCCATCAGTAGCACTGACTCTTGACAGAAGCACCGTTTCTGAAGTTGGCTAATGTATCC
CTCACGTTTGTGTTGTTGAAATTTGTTTTAGTTCCAGAGATAGCACTTTTATGGAATGAC
GCTATCTTCTAGAATCACTTTTTTTTTTTTTTTTGGAGTTGGAGTCTCGCTGTGTGCGCAGG
CTGGAGTGCAGTGGCACAATCTCAGCTCACTGCAATCTCCACCTTCCGGGTTCAAGTGAT
TCCCCTGCCTCAGCCTCCCGAGGAGCTGTTACTACAGGCGCACACCCCCACTCCTGGCTA

FIGURE 3-23

[-,A]
 TTTTATGTGTTTTAGTAGAGACGGGGTTTCACCGTGTGGCCAGGATGGTCTCGATCTCC
 TGACTTTGTGATCTGCCTGCTTCAGCCTCCCAAAGTGCTGGGATTACAGGTGTGAGTCAC
 CGCGCTGGCCTAGAATCACCTTTTTATACCATAACGTGAGCACCCTGCCGCGTCACCA
 AGGAAAGAGAGAGGCAGCTACTGTGGGGTTACAAATGGGTAAGAGTGGCACCAGGAAGGT
 GAAAGTCTCTACTTAGCCAAGGCTTAACAAATGTCAATCACCAAACATTTATTTATTA
 19670 GACCCCCATGATGAGCAACTATAGCACTAGAACAGTGATAATAACTAATGTTTTATAATGC
 ATCTTCAGTTTACAGAGGGCTTTTGTACTCATCATCTAGTTTAGTTCTGCAACAACCTC
 TTGAGGAATATAGCACAAGCAGGACAAGGGAAGCCCAGAGATGTTAAATAATTTATCCAA
 GTTTATGCTGCTGGGAAGGGCAGCACTGAAATTAAAAGAAAAGTTTCTGAGCTCAAATC
 CCATGCCCTTCTCAATGTGAGCTCTAGCAAGGTATTAGGAATCCTGCCTCTACAGTT
 [C,T]
 AGAGCCTCAAATTGCTGGGTATGTTGAGTCTTGTATCTGATTTTTCTAGATTTCTGCC
 CACATTTCTACTGTCTGGATATCAGGAAAGAGTTTATCAAATGCCTGTGGAAATCCAAGA
 TAAGGTCTCATGATGAGTAACCCAGTGAAAACATGAAGTCAAGTCTAACTAGTCACTACT
 ATTTCACTACTGCTGACTCCTGATGATCAGCTCCTTTTCTAAGTGCTTACTGTCCACTTA
 TTCCATCATCTGCCTAGAATTTATGTGAAGGAATCAAAGCAAAGGATCATAAGGCTTCC
 21153 GGACCCTGTGTTTGAAGGATGACTGCTGCTATAATGTAGAAAGTGATTTGGAAGAGGGG
 AGGAGTGGGGCACGAAAGATGGTTAGTAGATGGGGGTGGTAATGCTTACCTTTCAGTATT
 TGGAGGCTTCGGAGTCTCAAAAATTCTCTTCTTGATTGGAGTCTCCAGCCAATAGA
 GGGCTTCACACAAACAGTTTCTTGGGTTTGAATTGTTTGACCAGAGCTTCTTCCGACA
 AAAGTTGGGGTGATTCATTCACCTACCACACCTTGCCTGAACATTCATTTGGGGTGCC
 [G,T]
 GTTATGAAGGCTATTGTTCTCCAGCCTGTACAGACGCTTTGAAGACCTGTGCCTCAGCT
 GGTCTAAGGAGTCAGTTTGTTCAGCTCCGTGCCAGGTTTCCAACCTATGAAATGTGCTG
 GAGATTAACACCTCTCCTGCCATTTTATCCCTACTATAATTGCCAGTCAAAGGATTCCTG
 CAGTTGCCTCTGGCAGCCATAACTGATGAATGTTCTGCCAGCTGCTCTGAGGACCTAGAA
 GAGCAGTTTTCTATCCAGGACCACTTCCAAGGTGGGAGGGTGAAATATATCCTCCAGT
 24566 CTA CTCTGGAGGCTGAGGTGAGAGGATCACTTGAGTCCAGAAGGTGAGGTCAAGATTGT
 AGTGAGCCATGATGGCATCACCGCACTCCAGCCTGAGTGACAGAGAGAGACCCTGACTCA
 AAAAAAAAAAAAAACAAAAAAAAAAAAACACCTCACCACCTTATCAGCTATTTGTCTTGAGAA
 TAGTGACATAACCCCTCAGAACCTATTTCTAATCTGTTAAATGAGGCTGATGACGTTTC
 CTCCTTTTACTGGCAATTTAAACATGATGGATAATAAATGCTAAGCACTTAACACAGGGC
 [C,-]
 TAGAAGATATTAACCTGCTCAATAAATGGTAGCTTCTTAACAGTATTCAAACCCATGTGCT
 CTTATCACATGCATTGTTGTCCCTGTGTCCAGTTGGTGGAAATGGGAAAAGGCTCCCTTGT
 AACCCCATCTACCATCTTTATCAGACTTTCTGCCATGGTTACAGTAAGAGATAGAAGC
 TGCACGGTGACTTCTGGCTCTTTACAATGGTGAGCGGTGTGTGCCTGGTAAGGGAGAGCT
 GATGTCACTGCCCCAAATCCAGTAGTGAGATCTGAGTGTCTGGTTTCTCCAGCAGCCT
 26604 GATTTGCAGCTGAGCCTGTCTATCTGGTGTGGGAAGAAGATGGGGAGTTACTTGTGAGTC
 CCGGCTTACTTCACCTCCAGAGACCTGTTTTCGGTGAGTTGGTCTCCGAGTTCCCTCTCC
 ATCTCTCCTGGCCCCTGGTCTGAGAGGAGGGTGGTCTCCCTAAATCTCCTTCTCACTTA
 GTCCTTTACCATCGGTTCTGCCGGGCAGAAGCCAGCGGAGGTTATACCAAGGAGAATCG
 GCCTTGTGAGGTACCCCCATTATGTCCTGGAAGTGGTGAGGGGAGGGATATACCCAGAAG
 [G,A]
 AACTTCTTAGGGAGCTCCAGCTCCCTTCTATCCAGACAAACCTGAAGGAGCCTCCAAA
 AGATGCCACTGACCTGCCATTGTAGATGTTACTGCTTCCGGGGGGAATAGCCCAAATAG
 AGTGCTGTTTCCAGCTCTCACATGCTTACCTGCGGGCCATGCTGCCTGCCCAGGAATTT
 GTCCCAACAAGCAGGATGGGCAGGTTTGGCAAACCTGTGGAACTGGCAAGTCTGGGTG
 TGGGTAGCCTGGTACACAGTAGGCACCTTATAAACGTTTGTCTTAAATGGCAGGCACA
 27255 TGGGGAAAGACCTGGGCGAGTGCTTCTAAGACTGGAGCAATGGGCTTTAGAGTGTTCTCTG
 AGCTGCTGGGCCAGCCCCACACCTCCTCAGTCCCTAGGCCTAAGTACCTCCACGAGCCT
 CTCTCTGTGGGCTTCTCAGAGGGAGATGTGGAACTCTACCTCTAACCTGGCTTTCTTT
 GCTCATTGCCCCACTCCACCTCCCATAGAACTCCCCAGGGGGTTCTGGCCCTCTGGGT

FIGURE 3-24

CCCTTCTGAATGGAGCCATTCCAGGCTAGGGTGGGGTTTGTTCATTCTTTGGGAGCAG
[C,G]

CTGTTGTTCCAAAAAGGCTGCCTCCCCCTACCCAGTGGTCTGGTGGACTTTTCCCTTCT
GGCTTCTCTAAGCTAGGTCCAGTGGCCAGATCTTGCTGCCGGGATACTAGTCAGGTGGCC
AGGCCCTGGGCAGAAAAGCAGTGTACCATGTGGTTTTGTGGAATGACCGGACCCTGGTAG
ATTGCTGGGAAGTGTCTGGACAGGGGGAAGGGGAAGGGAAGTGGTCTCAATGCTGACT
CTACCAAGCGCCCTGCTAGACACTTATCCTTTAATCTCTCAACAGCCTAAAGAGATTAT

27399

AGATGTGGAACTCTACCTCTAACCTGGCTTTCTTTGCTCATTGCCCCACTCCACCTCCC
ATAGAACTCCCCAGGGGGTTTCTGGCCCTCTGGGTCCCTTCTGAATGGAGCCATTCCAG
GCTAGGGTGGGGTTTGTTCATTCTTTGGGAGCAGCCTGTTGTTCCAAAAAGGCTGCCT
CCCCCTACCCAGTGGTCTGGTGGACTTTTCCCTTCTGGCTTCTCTAAGCTAGGTCCAGT
GGCCAGATCTTGCTGCCGGGATACTAGTCAGGTGGCCAGGCCCTGGGCAGAAAAGCAGTG
[T,C]

ACCATGTGGTTTTGTGGAATGACCGGACCCTGGTAGATTGCTGGGAAGTGTCTGGACAGG
GGGAAGGGGAAGGGAAGTGGTCCCTCAATGCTGACTCTACCAAGCGCCCTGCTAGACACT
TTATCCTTTAATCTCTCAACAGCCTAAAGAGATTATATATCCCCATTTTACAGATGAGGC
AACCAGTTTCAACAGAGTTAACATATGGAGCCTCACTGGGCAGCTTTTCTGTCTTCTG
ACTTTCTCTCATCCTTCAAGGGGCTGCAGGTTGTTTTCTTCTCCTAGTGGAGAGGAAAT

28088

AAGAGCCAATGGAAATTGATCTTGAGTTTAGGAGAAAGCTTTTACATGTGGAATTAAGAT
GCCAAGTGTGGAAGTAGCCACATTTAGGTCTCATTAAATTTCTCTAATCCTGGGAAGG
CAGCTTAGGAGAAGGGTTGTTCCCTTAGGAGCCAGGAAGTATACCCCTTTTACCCTTGA
GAGGCAGGGAAGCCAGGGAGGACACAACCTTCTCAGGAAGAGGAGAAGCTAGAGCAGATAG
TGAACCTCTCAACCTGAACCTTTAAGGGCCAGACCACTAATGCCACCCAAGTCCACCTGCC
[G,A]

TTTGTCTTGTTCTGTCCCAGGCTTTCTGGAGAACCTGATCTTCTTGCCCCTACCCCCAAG
CTCCGTTTGCCAGCTAGAGTCTGGGGGACTGACTGACTTTCTGAGACATTCTTCCCT
TCCCCAAATAAGAGGCCACATTCCTGAAGTCACTTCTGAAGAGATAGCTGCCACACAGGG
CTCTTTCCCCCAGGGAGGGACCCAGACCCTCTGCTCTCCAGGTATCCGTTACCAC
ATCACTACCTGGT CAGAAAGCTGTTTCTGCCATTAGCCCCTCCCTCTTTATTATAGGAT

28734

AAGTAGAAGCTAGACTTCTTGCGCTCCTGAACAGGGTCCTTGCTGGATTCTGTGAAACAA
ATTAAGTTCTTGACCCTAGGCCTCTGGGGGAGTACAAAGTCTATGGGAGTTCTGGGGCTG
TGGTTGCAAGGAAAGTGACGCAACCAGATTCATGGGGACATGATCAGGCGTGACATGTG
AGGGAGGAAGAGGGAGCAAGGGAATGAAGAATACAACCTTCTGTGTCCCATACCCCCCTGC
CTGACAGGCCATACATACTCAGCAGAGAATGCACTGTCTTCTACCACACTAGCGTGAG
[G,A]

AGTGAGCTGCAATTACCACTGTGCTTCCAAGTAAGAAAATACCTCAAATTGGAATTTACA
AAAGAGGTAATAGGGAGTGGCTTTTGTGCGACATCTTTAAAGCATTTTCTTTTTATA
GAATTTCACTTAATGTCCAATACTGATTTAATGAGCTTGGGTTTACACATTATCTCTTGA
AGAAAACAAATGAACCTTTGTGTTCCAAAGCAATCCATGTTTAAAGGGAAAAAATTATGC
ATAACTCTGCCAGCTTCACAGTAACCTTTGGCAGGTGCCTTAGGTCCTCTGGGACTCTT

29246

AATCCATGTTTTAAAGGGAAAAAATTATGCATAACTCTGCCAGCTTCACAGTAACCTTTG
GCAGGTGCCTTAGGTCTCTGGGACTCTTTTCTTATCTGAAAAATGAAGGACTTGGATC
AGGTGAATGGTTCCCAGCTCTGCAACTTATGTGGCTCCTCAGAGGCACACAAGCTCTTTT
CCATTATTTGCCAAATAATGGAGGCCCTGTCTTTAACTGCAGTACAACTACACAAAATAC
TTGAAACTACAGTCTTCTGGTTTTTGGTTGGAAGTGAATCAGTGCCTCTAGCAACACT
[-,T]

ATTTCTTGCTGTTCTGAGGCTTCATTATGTGTTTGGTTAATTTTTTAAAACAACAATAAC
ATATTCATAATAATTACAGCTTAATTGGCAGACTGTTTCAGTCTATAGGATCTGCAGGA
AGGAGGAGTAATAAAGGGATTTTTGACTGAGCTCTTATGGAACAGAGTCTCTTAGGCCC
CTGTCATATCTGCCCTTCTGGGCCCTGGGGAAAAGTTGGCATCCCCAGTTGTGGTGCTCT
CCAGGTGCCCTCAGGCTGTGGTGGAGGGAGCTTCCATTCTCTCCTTCAGCCCACCTCAAT

29490

AACTACAGTCTTCTGGTTTTTGGTTGGAAGTGAATCAGTGCCTCTAGCAACACTTATT
TCTTGCTGTTCTGAGGCTTCATTATGTGTTTGGTTAATTTTTTAAAACAACAATAACATA
TTCCATAATAATTACAGCTTAATTGGCAGACTGTTTCAGTCTATAGGATCTGCAGGAAGG

FIGURE 3-25

AGGAGTAATAAAGGGATTTTTGACTGAGCTCTTATGGAACAGAGTCTCTCTAGGCCCTG
TCATATCTGCCCTTCTGGGCCCTGGGAAAAGTTGGCATCCCCAGTTGTGGTGCTCTCCA
[G,A]
GTGCCCTCAGGCTGTGGTGGAGGGAGCTTCCCATTCTCTCCTTCAGCCCACTCAATTTCAG
AGGCTAGGGGCTGAAAGAAGCTTCTCACACTGGCTGTTCACTGGGAGGTTAAGGGATG
ACCATCCAGCCAGGCCTTCTCAGGACATGGGAGGGCTTATGCTTTAACATGTGTAAATC
CACTGCAATAATGACTGGTTCTTTTACCCCATAGGTTGAGAATTTACCTGTAAACATTT
TTGTCTGAAGAATTTGGATGTAAGTGAGGGCTGGGCCTCTATCTTATCTCACTTGGCTTC

29934 GGACATGGGAGGGCTTATGCTTTAACATGTGTAAATCCACTGCAATAATGACTGGTTCCTT
TTACCCCATAGGTTGAGAATTTACCTGTAAACATTTTGTCTGAAGAATTTGGATGTAA
GTGAGGGCTGGGCCTCTATCTTATCTCACTTGGCTTCTCTCAGCACAGCACCTTGCCTGC
TTGTTCTTACACATCCTAGATGCACAGTAACATTTTCTAATTATTAGAAATCTATTAGA
ATCAATTGATTTTCACTGGGCTTGGTGGCTCCTCCTGTAAATCCCAGCACTTGGGAGGC
[T,C]
AAGGCTGGAGGATCACCTGAGTCCAGGAGTTTAAAGACCAGCCTGGGCAACATAGGGAGAC
CCTGTCTCTACAAAAATAAAAATTAGCCAGGCATGGTGGTGTGCACCTGTAGTCCCAG
CTACTCAGGAGGCTGAGGCAGGAGGATCTCTTGAGCCTGGGAGGTGAGCTACAGTGAGC
AATGATTGTGCCACTGCACTCCAGCCTGGGTGACAGAGTAAGACTCTGTCTCTTAAAAAA
AAAAAAAAAAAAAGTTGATTTCTATTGGATAGATAAATAATTCAATTTAGGACCTTCTT

34480 CTGACTTCAAGTGATCCACCCGCCTCGGCCTCCCAAAGTGCTGGGATTATAAGCATAAGC
CACTGTGCCAGCTGCTCTCTATATTTTTAATACATATTATTTCCATTAATTTTACAGC
AGTTCATTTTATAGATGAGGAACTAGGCCAGAGAAGTAAATATCTTGCCCAAGATGAT
GTAAGTAGTAAGTGGCAGGATCAAGATTCAAACCAAGCAATGTTCAAACCTCTTGAAGC
AAGAATGTGCCACTGTGGAAGGTGCAAGGCCTTGACAACAAGAATAGGGAAAAGAAGGA
[A,G]
CTAGAAGGAAAGAGATGGCATGGGCTCAGCAGGCCAGGGAGCTCTTAGCTGTGTGTGTG
GGAAGCTCAGAAGGGAGGAAGAGTTGTCTGTGCAGGTAAGTCTGAGAACACACCAGAC
TTTTGAGAGGTGGAGCTTCATAGCCAGGTCAATAGGGGAGAAGGGAGCTATAGATTTTTT
TTTTTTTTTTTTTTTTTTTTTTTTTTTATAGACGGGGTCTTACTATGTTGCCAGGCTG
GTCTTGAACCTCCTGGGCTCAAGTGATCCTCCACCTCAGCCTCCCAAAGTGCTGGGATTA

38812 AAATCCAGCAGATCCATTGAGAGTTTAAAGCAGCAAGGTGTTGTGACCAAGTTAACATTTT
AGAAGGATCACTGGTATGGAGGTTGGATTGGAGAGGGGAAAGCCTAAAGGTATAGAGACT
AGTTAGGAAGCTATTGTAGGCTGGGCATGGTGGTTCATGCCTGTAATCTCAGCACTTTGG
GAGGCTGAGGTGGGAGGATTGCTTGAGGCCAGGAGTTGAAGACCAACCTGGCCAACATAG
CAAGACCCCGTCTCTGTTTTTCTAATTTAAAGAAAAGTCCAGACGTAGACATAGTGGCT
[T,C]
ACGCCTGTAATGCCAGCACTTTGGGAGGCCAAGGTGGGCAGATTGCTTGAGGTCAAGAGT
TTGGGATTAGGCCAGGCGCAGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAG
GTGGGCGGATCACAAGGTGAGGAGATCAAGACCATCCTGGCTAACACAATGAAACCCCGT
CTCTACTAAAAGTACAAAAATTAGCCGGGCATGGTGGCGGACGCCTGTAGTCCCAGCTAC
TCGGGAGGCTGAGGCAGGAGAATGGCGTGAACCTAGGAGGCGGAGCTTGCTGTGAGCAGA

40731 GTTCTGTCTATGTCTGTCTCTCGGATGAAGCTGAGCTGGCTTTCAGAAGCCTGCAGAGT
TAGGAAAGGAACCAGCTGGCCAGGGACAGACTATGAGGATTGTGCTGACCCAGCTGCCCC
TGTGGGGATCACAGTTTACAGCCAGAGCCTGTGCGGACCCAGCTGTCTGCCAGTTTCCT
TAGAAACCTGAGAGTCAGTCTCTGTCCACTGAACCTCCTAAGCTGGACAGGAGGCAGTGAT
GCTAAACCTGAAGGGCAACATGGCCTATGGAGAAAGCATGGAGCTCAGAGCCTGGAGTA
[C,G]
GGGCACAGATAGGATTGAATAAATTGTGTAGAAAGACTTTGAAAAAATAAAGCAAAAGA
TGAATGAACGTTTTTTTTAGACTTGAGGGACCAACAACCCCCAAACCCAGATTCTGCCA
GGTCCATGGGGAAGGAGAAGTTGCCTTGAGTGAAGCCCCAAGTAGGGAGACTTACAGAA
AAGAGTCAAGAGCACTGGCTCCAGGCAGAAATACTGATACCCTACTGGGGCTTCAGGC
TGAGTCTCTCCCTTCAAAATCACTTCATCTCTGAGCCTGTTTCTGCATCTGTGACAT

41303 CTCTGAGCCTGTTTCTGCATCTGTGACATAAGATGGTAAGATAAAGGTGGCTGTCTCACC
AATTATGAAGGATTAAATGTGGAAAAGGACATAAAGTTGTATAGTGCTGCCATAGGGAC

FIGURE 3-26

AGTGTTCAGTAAACGTGACACATTCTTAGTATCACTAAGAATCAGGTTCTTGCCAGGCA
CCGTGGCTCATGCCTGTAATCCCAACACTCTGGGAGGCCTAGGTCGGAGGATGGCTTGAA
CACAGGAGTTTGAGACCAGCCTGAGCAACATAGTGAGACACTGTCTCTACAAAAAAAAA
[T,A]
AATAATAATAATTGTTTTTAATTAGATGGGCAGGGCACTGTGGCTCACACCTGTAATCCC
AGCACTTTGGGAGGCCAAGGCCGAGGATTGCTTGAGGCCAGGAGTTCAGGAGCAGCCTG
GGCCACATTCTGTCTCTACAAAGAATAAAAAAGTTAACTGGGCATGGTGGCACATGCCT
GTAATCCCAGCTACTCAAGAGGCTGAGGAGGAGGATTGCCTGAGCCCAGGAGTTCAGAC
TGCAGTGAGCCTTGATCACACCACTGTACTACAGCTTGGGCAACAGAGTGAGACCTTGTC

41305 CTGAGCCTGTTTCTGCATCTGTGACATAAGATGGTAAGATAAAGGTGGCTGTCTACCAA
TTATGTAAGGATTAAATGTGGAAGGACATAAAGTTGTATAGTGCTGCCATAGGGACAG
TGTTTCAGTAAACGTGACACATTCTTAGTATCACTAAGAATCAGGTTCTTGCCAGGCACC
GTGGCTCATGCCTGTAATCCCAACACTCTGGGAGGCCTAGGTCGGAGGATGGCTTGAA
CAGGAGTTTGAGACCAGCCTGAGCAACATAGTGAGACACTGTCTCTACAAAAAAAAAATA
[-,A]
TAATAATAATTGTTTTTAATTAGATGGGCAGGGCACTGTGGCTCACACCTGTAATCCCAG
CACTTTGGGAGGCCAAGGCCGAGGATTGCTTGAGGCCAGGAGTTCAGGAGCAGCCTGGG
CCACATTCTGTCTCTACAAAGAATAAAAAAGTTAACTGGGCATGGTGGCACATGCCTGT
AATCCCAGCTACTCAAGAGGCTGAGGAGGAGGATTGCCTGAGCCCAGGAGTTCAGACTG
CAGTGAGCCTTGATCACACCACTGTACTACAGCTTGGGCAACAGAGTGAGACCTTGTC

41457 CTAAGAATCAGGTTCTTGCCAGGCACCGTGGCTCATGCCTGTAATECCAACACTCTGGG
AGGCTAGGTCGGAGGATGGCTTGAAACAGGAGTTTGAGACCAGCCTGAGCAACATAGT
GAGACACTGTCTCTACAAAAAAAAAATAATAATAATTGTTTAAATTAGATGGGCAG
GGCACTGTGGCTCACACCTGTAATCCCAGCACTTTGGGAGGCCAAGGCCGAGGATTGCT
TGAGGCCAGGAGTTCAGGAGCAGCCTGGGCCACATTCTGTCTCTACAAAGAATAAAAA
[G,C]
TTAACTGGGCATGGTGGCACATGCCTGTAATCCCAGCTACTCAAGAGGCTGAGGAGGAGG
ATTGCCTGAGCCCAGGAGTTCAGACTGCAGTGAGCCTTGATCACACCACTGTACTACAG
CTTGGGCAACAGAGTGAGACCTTGCTCCAAAAAAAAAAGTTTGTTTTTTTTATCCACT
CTCCTACCAAAACAACTGAGTAAGTTAGAGCCCTCTCAGCTGGCATGTGTTGGAAACAG
TGCCCTCTCATTAAAGTGCTGCCCTCACTCCATTGCCCTTGGCCTTGGTCAGTATGAT

43168 AGCTACTTGGGAGGCTGAGGCAGGAGAATCGCTTGAACCTGGAAGGCGAGGTGCGAGTG
AGCCGAGATCGTGCCATTGCACTTCAGCCTGGGCGACAGAGCGAGACTCTGTCTCAAAAA
TAATAATAATAACAATAACTAGCCGGCCTGGTGGCACATGCCTGTAGTCCCAGTTACTC
AGGAGGCGGAGGCATGAGACTCAGGTGAAGTGGGAGACAGAGGTTGCACTGAGCCAAGA
TCACACCACTGCACTCCAGCCTGGTTGACAGAGCGAGACTCTGTCTCAAAAAAAAAAAAA
[A,-,T]
CCCATTGCTCATTTTTTGGATACTAGTATAACTATCACTCTAAACCAGTTAGTACTTAA
ATCAAGCAGATATGGGAGATGGTGAATTACCATCTACAGTGTGTGCATATATGTCACATA
CTGAGCATTATCAGCTAGTAGAATCTAGTTAATTGTTCTATGTGTGATGTATGCAGAGTT
CCCATTTTGAATGTGTTTTTACTATGCTTAAATAAATGACTGATGTCAGCAACCCCAAAA
TGATACATCTGATGTAAGAGCCCTGTTCCCAATAATAACATCTAAACTATAGACATTG

43357 AGGCATGAGACTCAGGTGAAGTGGGAGACAGAGGTTGCACTGAGCCAAGATCACACCAC
TGCACTCCAGCCTGGTTGACAGAGCGAGACTCTGTCTCAAAAAAAAAAAAAATCCCATTG
CTCATTTTTTGGATACTAGTATAACTATCACTCTAAACCAGTTAGTACTTAAATCAAGCA
GATATGGGAGATGGTGAATTACCATCTACAGTGTGTGCATATATGTCACATACTGAGCAT
TATCAGCTAGTAGAATCTAGTTAATTGTTCTATGTGTGATGTATGCAGAGTTCCCATT
[T,G]
AATGTGTTTTTACTATGCTTAAATAAATGACTGATGTGAGCAACCCCAAAATGATACATC
TGATGTAAGAGCCCTGTTCCCAATAATAACATCTAAACTATAGACATTGGAATGAACA
GGTGGCCCTAAGTTTCTCCCTCCAGGGTTTCTTGCCCGGTCTCTGAGGACTACACATCC
CTACTCCCTCTTTCTCATCTTCAGGCGCAGTAACAGTATCTCCAAGTCCCTGGCCCC
AGCTCCCCAAAGGAGCCCTGCTGTTGAGCCGTGACATCAGCCGCTCAGAATCCCTTCGT

45664 CCAGCTTTCCTTGGCTTCCCCACCCCCAGGTGAAAGTGATGCGCAGCCTGGACCACCCC

FIGURE 3-27

AATGTGCTCAAGTTCATTGGTGTGCTGTACAAGGATAAGAAGCTGAACCTGCTGACAGAG
TACATTGAGGGGGGCACACTGAAGGACTTTCTGCGCAGTATGGTGAGCACACCACCCCAT
AGTCTCCAGGAGCCTTGGTGGGTGTGTCAGACACCTATGCTATCACTACCCTAGGAGCTTA
AAGGGCAGAGGGGGCCCTGCTTTGCCTCCAAAGGACCATGCTGGGTGGGACTGAGCATACA
[T,C]
AGGGAGGCTTCACTGGGAGACCACATTGACCCATGGGGCCTGGACCACGAGTGGGACAGG
GCTCAACAGCCTCTGAAAATCATTCCCCATTCTGCAGGATCCGTTCCCCTGGCAGCAGAA
GGTCAGGTTTGC AAAAGGAATCGCCTCCGGAATGGTGAGTCCCACCAACAAACCTGCCAG
CAGGGCAGAGTAGGGAGAGGTGTGAGAATTGTGGGCTTCACTGGAAGGTAGAGACCCCT
TCCTATGCAACTTGTGTGGGCTGGGTGAGCAGCTATTCATTGAGTTTGTCTGTGCTACTG

47549

AATTAGCTGGGCGTGGTGGTGACGCCTGTAGTCCCAGCTACTCAGGAGGCCGAGGCAGG
AGAATAGCTTGAACCTGGGAGGCAGAAGTTGCAGTGAGCCAAGATCACACCACTGCATTTC
CAGCCTGGGTGACAGAGTGAGACTTCATCTCAAAAAAAAAAAAAAGAGAGACTGATATG
GTTAGTACATTGGGGTGGAATGCGGAGGGTCCAGGGAATGGAGCCCTGCATAGGGGGCTA
ATGAAACATTTAGATTTCTGAATTAAGGTAGTGGCTGTGGGGACAGGAGCCTGGGAGGC
[A,C]
GGGTGGAGTCAGAATGGAGAGACTGGTTGGCAATGAGGGAACAGGAGGAGGAGGAGGAGG
AGTTACGAGTGCGCTTGAGGTGTCACTTACCAGACATTTGGGGGATGGGGGATAGCCGTGA
TTGTTGAGCAACTGGTTTGGGAAGAGCTAGCATTGATCCCTGCTGTTCTGTGCTAGCAGA
ACCTATCAGCATCTTCTGGGCAGGAACTGGCTCCATGAGACTGGCTTAGGGAGAGGCTG
CTAGTCACCTAATCTGCAGAGAAGGGGCAGCTGGAGCTGTGGGACAGAAGAGGCATCCAT

47908

GGAGTTACGAGTGCGCTTGAGGTGTCACTTACCAGACATTTGGGGGATGGGGGATAGCCGT
GATTGTTGAGCAACTGGTTTGGGAAGAGCTAGCATTGATCCCTGCTGTTCTGTGCTAGCA
GAACCTATCAGCATCTTCTGGGCAGGAACTGGCTCCATGAGACTGGCTTAGGGAGAGGC
TGCTAGTCACCTAATCTGCAGAGAAGGGGCAGCTGGAGCTGTGGGACAGAAGAGGCATCC
ATGTAGCTGGTGGGGGTGTCTCAGCTTGTGAAGAGGAGATGGCTTTGAGCAGGGCTGACA
[C,A]
TGAAAAGGCTGGAAGAAAAAACAGACACACAAGAGTCTCAGGATCAGGTAGCATAGGAA
AGTTGTGGACAGTCTTTGAGGAGCACTCCCTCAGGCAGGCAGGCAGGCAGGTATGAGCT
ATAGCGATTGAGGAAGAGCTCCCTGGGTGTGTGAGCAGCTCCAGGAGCCTAAGGGATGAA
AGTAGATTGTCAGGGGGCTGGAGAGCAAGGAGTGGCTCCTTCTACATTTGCAAGGGAAGG
AGAAAGGAAGTTGCTCCTGAGAGTGGTAAGAGTCAGTGGTGGAGGCCTGGAGAGGAGACA

52267

TTGTGAGGGGTAGAGGAGAGGAGAGACAAGGGATGGTTAGGATAATGAAGGAATGTTTTG
TTTTTGT TTTTGT TTTTGT TTTTGT TTTTGT TTTTGT TTTTGT TTTTGT TTTTGT
GCAATCTTGGCTCACTGCAGCCTCCGCTCCAGGTTCAAGCAATCCTCCTGCCTCAGCC
TCCCAAGTAGCTGGGACTACAGGTGTGCGCCACCACGCCTGGCTAATTTTGTATTTTCA
GTAGAGACAGGGTTTCGCCATATTGGCCAGGCTGGTCTCAAATGCCTGACCTCAGGTGAT
[C,A]
CACCCGCTTCAGCCTCCCAAAGTGCTGAGATTACAGGCATGAGCTACCGTGCCTGGCCAT
GAAGGAAGATTTGTTTTAAAAAATGTTTTCTTTAATATTAATTGAACACCTCTGTTTCA
AGCACTGGGCTGGTGCCAGAGGGTTTCAGACATGAATCAGATCCAGCACCTCATAGAGCC
TTAATCTGGCACACACACACAGCCACAAGGAGACACAGACAAGGCAGGGTAGGATGAGTG
GAAGCTAGGAGCAGATGCTGATTTGGAACACTTGGCTTCTGCAGTGAAGCCCTTCTTAG

54654

GGCCCCGGCCCCGGCCCCCAGGCCAGGCAGTGGCGGCCAAGGACCACGCATCTACTTTCA
GAGCCCCCCCCGGGGCCGAGGAGAGGGCCCCGGGCTGGGCGGATGATGAGGGCCCAGTGA
GGCGCCAAGGGAAGGTACCATCAAGTATGACCCCAAGGAGCTACGGAAGCACCTCAACC
TAGAGGAGTGGATCCTGGAGCAGCTCACGCGCTCTACGACTGCCAGGAAGAGGAGATCT
CAGAACTAGAGATTGACGTGGATGAGCTCCTGGACATGGAGAGTGACGATGCCTGGGCTT
[T,C]
CAGGTCAGGAGCTGCTGGTTGACTGTTACAAACCCACAGAGGCCTTCATCTCTGGCCT
GCTGGACAAGATCCGGGCCATGCAGAAGCTGAGCACACCCAGAGAAGTGAAGGTGAGGGTCCC
GACCCAGGCGAACGGTGGCTCCCATAGGACAATCGCTACCCCCGACCTCGTAGCAACAG
CAATACCGGGGACCCCTGCGGCCAGGCCTGGTTCCATGAGCAGGGCTCCTCGTGCCCCCTG
GCCAGGGGTCTTCCCCCTGCCCCCTCAGTTTTCACTTTTGGATTTTTTATTGTTAT

FIGURE 3-28

54679 GGCAGTGGCGGCCAAGGACCACGCATCTACTTTTCAGAGCCCCCCCCGGGGCCGCAGGAGA
GGGCCCCGGGCTGGGCGGATGATGAGGGGCCAGTGAGGCGCCAAGGGAAGGTCACCATCAA
GTATGACCCCAAGGAGCTACGGAAGCACCTCAACCTAGAGGAGTGGATCCTGGAGCAGCT
CACGCGCCTCTACGACTGCCAGGAAGAGGAGATCTCAGAACTAGAGATTGACGTGGATGA
GCTCCTGGACATGGAGAGTGACGATGCCTGGGCTTCCAGGGTCAAGGAGCTGCTGGTTGA
[C,G]
TGTTACAAACCCACAGAGGCCCTTCATCTCTGGCCTGCTGGACAAGATCCGGGCCATGCAG
AAGCTGAGCACACCCAGAAAGTGAGGGTCCCCGACCCAGGCGAACGGTGGCTCCCAT
AGGACAATCGCTACCCCCGACCTCGTAGCAACAGCAATACCGGGGGACCCTGCGGCCAG
GCCTGGTTCCATGAGCAGGGCTCCTCGTGCCCCTGGCCAGGGGTCTCTTCCCCTGCCCC
CTCAGTTTTTCACTTTTGGATTTTTTTATTGTTATTAAGTATGATGGGACTTTGTGTTTTT

54693 AGGACCACGCATCTACTTTTCAGAGCCCCCCCCGGGGCCGCAGGAGAGGGCCCCGGGCTGGG
CGGATGATGAGGGGCCAGTGAGGCGCCAAGGGAAGGTCACCATCAAGTATGACCCCAAGG
AGCTACGGAAGCACCTCAACCTAGAGGAGTGGATCCTGGAGCAGCTCACGCGCCTCTACG
ACTGCCAGGAAGAGGAGATCTCAGAACTAGAGATTGACGTGGATGAGCTCCTGGACATGG
AGAGTGACGATGCCTGGGCTTCCAGGGTCAAGGAGCTGCTGGTTGACTGTTACAAACCCA
[A,C]
AGAGGCCCTTCATCTCTGGCCTGCTGGACAAGATCCGGGCCATGCAGAAGCTGAGCACACC
CCAGAAGAAGTGAGGGTCCCCGACCCAGGCGAACGGTGGCTCCCATAGGACAATCGCTAC
CCCCGACCTCGTAGCAACAGCAATACCGGGGGACCCTGCGGCCAGGCCTGGTTCCATGA
GCAGGGCTCCTCGTGCCCCTGGCCAGGGGTCTCTTCCCCTGCCCCCTCAGTTTTTCACT
TTTTGGATTTTTTTATTGTTATTAAGTATGATGGGACTTTGTGTTTTTATATTGACTCTGCG

54706 TACTTTCAGAGCCCCCCCCGGGGCCGCAGGAGAGGGGCCGGGCTGGGCGGATGATGAGGG
CCCAGTGAGGCGCCAAGGGAAGGTCACCATCAAGTATGACCCCAAGGAGCTACGGAAGCA
CCTCAACCTAGAGGAGTGGATCCTGGAGCAGCTCACGCGCCTCTACGACTGCCAGGAAGA
GGAGATCTCAGAACTAGAGATTGACGTGGATGAGCTCCTGGACATGGAGAGTGACGATGC
CTGGGCTTCCAGGGTCAAGGAGCTGCTGGTTGACTGTTACAAACCCACAGAGGCCCTTCAT
[T,C]
TCTGGCCTGCTGGACAAGATCCGGGCCATGCAGAAGCTGAGCACACCCAGAAAGTGA
GGGTCCCCGACCCAGGCGAACGGTGGCTCCCATAGGACAATCGCTACCCCCGACCTCGT
AGCAACAGCAATACCGGGGGACCCTGCGGCCAGGCCTGGTTCCATGAGCAGGGCTCCTCG
TGCCCCTGGCCAGGGGTCTCTTCCCCTGCCCCCTCAGTTTTTCACTTTTTGGATTTTTTT
ATTGTTATTAAGTATGATGGGACTTTGTGTTTTTATATTGACTCTGCGGCACGGGCCCTTT

54712 CAGAGCCCCCCCCGGGGCCGCAGGAGAGGGGCCGGGCTGGGCGGATGATGAGGGCCCAGT
GAGGCGCCAAGGGAAGGTCACCATCAAGTATGACCCCAAGGAGCTACGGAAGCACCTCAA
CCTAGAGGAGTGGATCCTGGAGCAGCTCACGCGCCTCTACGACTGCCAGGAAGAGGAGAT
CTCAGAACTAGAGATTGACGTGGATGAGCTCCTGGACATGGAGAGTGACGATGCCTGGGC
TTCAGGGTCAAGGAGCTGCTGGTTGACTGTTACAAACCCACAGAGGCCCTTCATCTCTGG
[T,C]
CTGCTGGACAAGATCCGGGCCATGCAGAAGCTGAGCACACCCAGAAAGTGAAGGTCC
CCGACCCAGGCGAACGGTGGCTCCCATAGGACAATCGCTACCCCCGACCTCGTAGCAAC
AGCAATACCGGGGGACCCTGCGGCCAGGCCTGGTTCCATGAGCAGGGCTCCTCGTGCCCC
TGGCCAGGGGTCTCTTCCCCTGCCCCCTCAGTTTTTCACTTTTTGGATTTTTTTATTGTT
ATTAAACTGATGGGACTTTGTGTTTTTATATTGACTCTGCGGCACGGGCCCTTTAATAAA

54799 GTATGACCCCAAGGAGCTACGGAAGCACCTCAACCTAGAGGAGTGGATCCTGGAGCAGCT
CACGCGCCTCTACGACTGCCAGGAAGAGGAGATCTCAGAACTAGAGATTGACGTGGATGA
GCTCCTGGACATGGAGAGTGACGATGCCTGGGCTTCCAGGGTCAAGGAGCTGCTGGTTGA
CTGTTACAAACCCACAGAGGCCCTTCATCTCTGGCCTGCTGGACAAGATCCGGGCCATGCA
GAAGCTGAGCACACCCAGAAAGTGAGGGTCCCCGACCCAGGCGAACGGTGGCTCCCA
[T,C]
AGGACAATCGCTACCCCCGACCTCGTAGCAACAGCAATACCGGGGGACCCTGCGGCCAG
GCCTGGTTCCATGAGCAGGGCTCCTCGTGCCCCTGGCCAGGGGTCTCTTCCCCTGCCCC
CTCAGTTTTTCACTTTTGGATTTTTTTATTGTTATTAAGTATGATGGGACTTTGTGTTTTT
ATATTGACTCTGCGGCACGGGCCCTTTAATAAGCGAGGTAGGGTACGCCTTTGGTGCAG
CTCAAAAAAAAAAAAAAAAAATGATTTCCAGCGGTCCACATTAGAGTTGAAATTTTCTGTT

FIGURE 3-29

54819 GGAAGCACCTCAACCTAGAGGAGTGGATCCTGGAGCAGCTCACGCGCCTCTACGACTGCC
 AGGAAGAGGAGATCTCAGAACTAGAGATTGACGTGGATGAGCTCCTGGACATGGAGAGTG
 ACGATGCCTGGGCTTCCAGGGTCAAGGAGCTGCTGGTTGACTGTTACAAACCCACAGAGG
 CCTTCATCTCTGGCCTGCTGGACAAGATCCGGGCCATGCAGAAGCTGAGCACACCCGAGA
 AGAAGTGAGGGTCCCCGACCCAGGCGAACGGTGGCTCCCATAGGACAATCGCTACCCCC
 [G,A]
 ACCTCGTAGCAACAGCAATACCGGGGACCCCTGCGGCCAGGCCTGGTTCCATGAGCAGGG
 CTCCTCGTGCCCTGGCCAGGGTCTCTCCCTGCCCCCTCAGTTTTCCACTTTTGA
 TTTTTTATTGTTATTAACTGATGGGACTTTGTGTTTTTATATTGACTCTGCGGCACGG
 GCCCTTTAATAAGCGAGGTAGGGTACGCCTTTGGTGCAGCTCAAAAAAAAAAAAAAAAAA
 TGATTTCCAGCGGTCCACATTAGAGTTGAAATTTCTGGTGGGAGAATCTATACCTTGT

55499 TTGTTTTCTAATACCTCTTGTCATTCTAAATATCTTTAATTTATTAATAAATATATATAT
 ACAGTATTGAATGCCTACTGTGTGCTAGGTACAGTTCTAAACACTTGGGTTACAGCAGCG
 AACAAAATAAAGGTGCTTACCCTCATAGAACATAGATTCTAGCATGGTATCTACTGTATC
 ATACAGTAGATACAATAAGTAACTATATTGAATATTAGAATGTGGCAGATGCTATGGAA
 AAAGAGTCAAGACAAGTAAAGACGATTGTTCAGGGTACCAGTTGCAATTTTAAATATGGT
 [C,T]
 GTCAGAGCAGGCCTCACTGAGGTGACATGACATTTAAGCATAAACATGGAGGAGGAGGAG
 TAAGCCTGAGCTGTCTTAGGCTTCCGGGGCAGCCAAGCCATTTCCGTGGCACTAGGAGCC
 TGGTGTTTCCGATTCCACCTTTGATAACTGCATTTTCTCTAAGATATGGGAGGGAAGTTT
 TTCTCCTATTGTTTTTAAGTATTAAGTCCAGCTAGTCCAGCCTTGTATAGTGTACCTA
 ATCTTTATAGCAAATATATGAGGTACCGGTAAACATTATGCCCATTTCTCACAGAGGCACT

56825 ACTGATGGCTCAAAGGGTGTGAAAAAGTCAAGTATGCTCCCCCTTTCTACTCCAGATCCT
 GTCCTTCCTGGAGCAAGGTGAGGGAGTAGGTTTTGAAGAGTCCCTTAATATGTGGTGA
 ACAGGCCAGGAGTTAGAGAAAGGGCTGGCTTCTGTTTACCTGCTCACTGGCTCTAGCCAG
 CCCAGGGACCACATCAATGTGAGAGGAAGCCTCCACCTCATGTTTTCAAACCTTAATACTG
 GAGACTGGCTGAGAACTTACGGACAACATCCTTTCTGTCTGAAACAAACAGTCACAAGCA
 [C,A]
 AGGAAGAGGGCTGGGGGACTAGAAAGAGGCCCTGCCCTCTAGAAAGCTCAGATCTTGGCTT
 CTGTTACTCATACTCGGGTGGGCTCCTTAGTCAGATGCCTAAAAACATTTGCCTAAAGCT
 CGATGGGTTCTGGAGGACAGTGTGGCTTGTACAGGCCTAGAGTCTGAGGGAGGGGAGTG
 GGAGTCTCAGCAATCTCTGGTCTTGGCTTCATGGCAACCACTGCTCACCTTCAACATG
 CCTGTTTTAGGCAGCAGCTTGGGCTGGGAAGAGGTGGTGGCAGAGTCTCAAAGCTGAGAT

58871 CGTACCCACCACCCAACCCCTGCCGCACTCCAGCCTTTAACAAGGGCTGTCTAGATATT
 CATTTTAACTACCTCCACCTTGGAAACAATTGCTGAAGGGGAGAGGATTGCAATGACCA
 ACCACCTTGTGGGACGCCTGCACACCTGTCTTTCCTGCTTCAACCTGAAAGATTCTCTGA
 TGATGATAATCTGGACACAGAAGCCGGGCACGGTGGCTTAGCCTGTAATCTCAGCACTT
 TGGGAGGCCTCAGCAGGTGGATCACCTGAGATCAAGAGTTTGAGAACAGCCTGACCAACA
 [T,A]
 GGTGAAACCCCGTCTCTACTAAAAATACAAAAATTAGCCAGGTGTGGTGGCACATACCTG
 TAATCCCAGCTACTCTGGAGGCTGAGGCAGGAGAATCGCTTGAACCCACAAGGCAGAGGT
 TGCAGTGAGGCGAGATCATGCCATTGCACTCCAGCCTGTGCAACAAGAGCCAACTCCAT
 CTCAAAAAAAAA

FIGURE 3-30